KAC-43

KitchenAid

TECHNICAL EDUCATION

FAILURE CODES AND WIRING DIAGRAMS for WHIRLPOOL AND KITCHENAID SLIDE-IN & FREESTANDING GAS & ELECTRIC RANGES



JOB AID 4317368

FORWARD

This KitchenAid Job Aid, "Failure Codes And Wiring Diagrams For Whirlpool and KitchenAid Slide-In & Freestanding Gas & Electric Ranges," (Part No. 4317368), provides the technician with information on diagnosing and troubleshooting slide-in and freestanding gas & electric ranges. It is to be used as a training Job Aid. For specific information on the model being serviced, refer to the "Use and Care Guide," or "Tech Sheet" provided with the unit.

The Wiring Diagrams used in this Job Aid are typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product when servicing the unit.

GOALS AND OBJECTIVES

The goal of this Job Aid is to provide detailed information that will enable the service technician to properly diagnose malfunctions and repair Whirlpool and KitchenAid ranges.

The objectives of this Job Aid are to:

- Successfully troubleshoot and diagnose malfunctions.
- Offer Electronic Oven Control information.

WHIRLPOOL CORPORATION assumes no responsibility for any repairs made on our products by anyone other than Authorized Service Technicians.

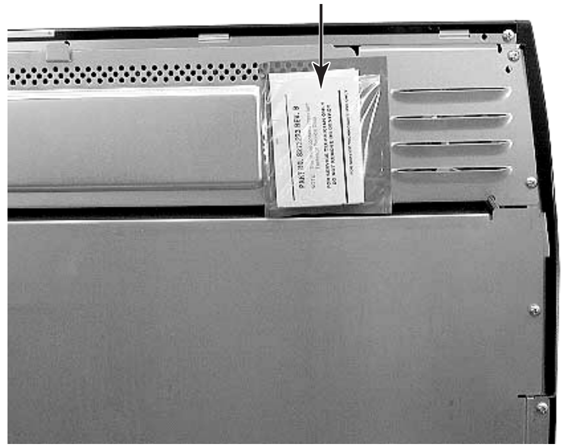
MODEL/SERIAL NUMBER LABEL AND TECH SHEET LOCATIONS

Tulsa-Built Units

Model/Serial Number Label Location
(Behind Storage Drawer)

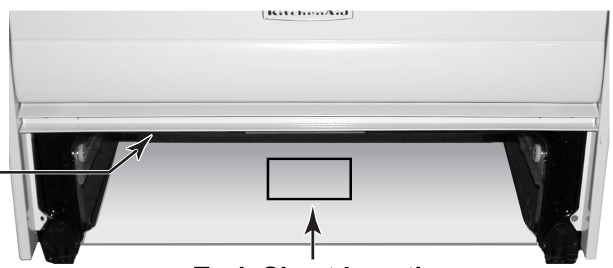


Tech Sheet Location
(On Rear Panel)



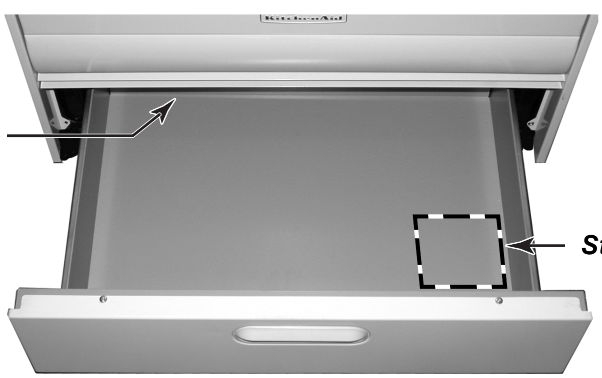
Oxford-Built Units

Model/Serial Number Location
(On Chassis Frame)



Tech Sheet Location
Warming Drawer Models Only
(On Chassis Under Drawer)

Model/Serial Number Location
(On Chassis Frame)



Tech Sheet Location
Storage Drawer Models Only
(On Underside Of Drawer)

REFERENCE CHART

Model #	Tech Sheet #	Power Board	Display Board	KeyPad	Component Check Page	Clock Diagnostics Pg	Failure Code Page
KERI201P BL, BS, WH	9756993		9756547	9756531	8-10	70	4
KERI203P BL, BS, WH	9756997		9756548	9756534	11-13	70	4
KERA205P BL, BT, SS, WH	9758315	9759563	9759566	9756535	14-17	64-65	4
KESI901P WH, BL, BS	9757663	9759561	9759564	9756591	18-21	64-65	5
KERA807P BL, BB, WW, SS	9757662	9759561	9759565	9756595	22-26	64-65	5
KESA907P BL, BB, SS, WW	9757662	9759561	9759565	9756595	22-26	64-65	5
KGRA806P BL, BT, SS, WH	9757665	9759562	9760201	9756559	27-30	64-65	5
KGSA906P BL, BT, SS, WH	9757665	9759562	9760201	9756559	27-30	64-65	5
KGRI801P BL. BS, WH	9757666	9759562	9760201	9756555	31-34	64-65	5
KGSI901P BL,BS, WH	9757666	9759562	9760201	9756555	31-34	64-65	5
KERV908P MT, SS	9757661	9759561	9759565	9756595	22-25	64-65	5
KESV808P MT, SS	9757661	9759561	9759565	9756595	22-25	64-65	5
GW395LEP B,Q S,T,	9757668		9760013	9756667	48-50	71	5
GY396LXP B, Q, S, T	9759904		9757476	9756667	48-51	71	5
GY398LXP B, S, T	9759903		9757475	9756691	52-54	71	5
RF196LXM B, Q, T	9757347		6610398		55-57	72	4
RF364PXP B, Q, T, W	9757347		6610398		55-57	72	4
RF365PXM Q, T, W	4454079		6610397		55-58	72	4
RF366LXP B, Q, S, T	9756207		6610398		55-59	72	4
RF368LXP B, Q, S, T	9756207		6610398		55-59	72	4
RF369LXP B, Q, T	4454079		6610398		55-58	72	4
RF378LXP B, Q, S, T	9759917		6610398		55-60	72	4
RF380LXP B, Q, S, T	9759917		6610398		55-60	72	4
GR448LXP B, Q, S, T	9759784	9757499	9757271	9758453	35-37	71	4
GR478LXP B, Q, S, T	9759783	9759563	9759558	9758457	38-41	66-67	4
SF196LEP B, Q, T	9755996		6610394		55-61	72	4
SF368LEP B, Q, S, T, W	9755996		6610394		55-61	72	4
SF369LEP B, Q, T	9755996		6610394		55-61	72	4
SF378LEP B, Q, S, T	9755996		6610394		55-61	72	4
SF380LEP B, Q, S, T	9755996		6610394		55-61	72	4
GS440LEM B, Q, T	8272223		8523284		42-44	73	4
GS445LEM S	8272223		8523284		42-44	73	4
GS470LEM B, Q, T	8522648	9756863	6610333	4453608	45-47	68-69	4
GS475LEM S	8522648	9756863	6610333	4453608	45-47	68-69	4

CONSOLE COLORS

Black	Black on Stainless	Meteorite	Stainless	Biscuit on Biscuit	White	White on White
4453608					4453601	
6610394				6610396	6610395	
6610398				6610399		6610397
6610439				6610440	6610438	
6610441				6610443	6610442	
8523284				8523281	8523283	
9756531				9756529	9756530	
9756534				9756533	9756532	
9756535			9756537	9756536	9756538	
9756563			9756565	9756564	9756566	
9756555BL	9756555BL				9756555WH	9756555WH
9756556BL					9756556WH	
9756559BL	9756559BS		9756559ES		9756559WH	9756559WH
9756560BL			9756560ES	9756560BT	9756560WH	
9756591BL	9756591BL				9756591WH	9756591WH
9756592BL					9756592WH	
9756595BL		9756595CM	9756595ES	9756595BT	9756595WH	
9756667BL	9756667BS		9756667ES	9756667BT		9756667WH
9756691BL			9756691ES	9756691BT		9756691WH
9758453			9758453	9758452		9758451
9758457			9758457	9758456		9758455

KitchenAid

BL = Black
BS = Black on Stainless
BT = Biscuit on Biscuit
MT = Meteorite
SS = Stainless Steel
WH = White

Whirlpool

B = Black
Q = White on White
S = Stainless Steel
T = Biscuit on Biscuit
W = White

ERROR / FAILURE CODES (TULSA & CELAYA)

4 DIGIT DISPLAY	3 DIGIT DISPLAY	KNOB CONTROL	FAULT DESCRIPTION	SUGGESTED CORRECTIVE ACTION PROCEDURE
F0 E0 F1 E0	E0 F1	Control will flash the HEATING LED.	EEPROM communication error.	1. Disconnect power from oven for longer than 30 seconds. 2. Re-apply power and observe for longer than 1 minute. 3. If failure remains, disconnect power, replace control, then go back to step 2.
F1 E1	F1	Control will flash the HEATING LED.	EEPROM checksum error.	
F1 E2	N/A	N/A	UL A/D error.	
F1 E4	N/A	N/A	Model ID error.	
F1 E6	N/A	N/A	Latch signal mismatch error.	
F2 E0	F1	N/A	Shorted keypad.	1. Disconnect power from oven for longer than 30 seconds. 2. Re-apply power and observe for longer than 5 minutes. 3. If failure remains, disconnect power, replace control, then go back to step 2. 4. Unplug and replug membrane connector.
F2 E1	F1	N/A		
F3 E0	F3	Control will flash the OVEN ON and HEATING LEDs continually.	Top oven sensor open.	1. a) Measure sensor value between 1000 Ω @ 32°F and 2697 Ω @ 900°F. If measurement does not match real temperature, replace sensor and refer to steps 3-5. b) Measure from sensor connector to sensor casing for possible short. 2. Trace wires and connectors to sensor, from control, then from sensor back to control. If all connections made and no wire damage, refer to step 3. 3. Disconnect power longer than 30 seconds. 4. Re-apply power and observe for longer than 1 minute. 5. If failure remains, disconnect power, replace control, then go back to step 4.
F3 E1	F3		Top oven sensor shorted.	
F3 E2	F3		BAKE range over temp.	
F3 E3	F3		CLEAN range over temp.	
F3 E4	N/A		Bottom oven sensor open.	
F3 E5	N/A		Bottom oven sensor shorted.	
F3	E6	Warming drawer sensor open	Door and latch switches do not agree (i.e. door open latch closed).	1. If door latched: a) Disconnect power from unit. b) Check wires and connectors from control to door switch, then from door switch to control. If no damage to wires and all connectors okay, proceed to step c. c) Replace door switch. d) Re-apply power to unit and verify operations. 2. If door not latched: a) Disconnect power from unit. b) Check wires and connectors from control to latch switch, then from latch switch to control. If no damage to wires and all connectors okay, proceed to step c. c) Repeat steps a) and b) for door switch. 3. Measure door switch (door open = switch open small low voltage terminals). 4. Measure latch switch (unlatch = switch open. NOTE: Oven light contacts are closed). 5. If corrections are made in any step, reconnect control to verify correction. 6. Check door alignment. 7. If failure remains, replace control.
	E7	Warming drawer sensor shorted		
F5 E0	F5	Control will flash the DOOR LOCKED / CLEANING LED.	Latch or latch switch failure.	
F5 E1	F5		Door lock error during Clean.	
	F5			
PF	N/A	N/A	Power failure (not a failure mode).	Do not replace control.
N/A	N/A	Control will flash the OVEN ON LED.	The oven knob is not in the OFF position when the unit is powered up.	Turn knob to OFF position and turn to desired temperature.
N/A	N/A	Control will flash the DOOR LOCKED / CLEANING and HEATING LED.	Centertap voltage failure.	Replace control.

ERROR / FAILURE CODES (OXFORD)

Before proceeding with any corrective action, perform the following steps to enter the Diagnostic mode.

1. To recall last failure code, if not displayed, press the Cancel key to place the range in an idle state.
2. Press the Cancel and Start keys in the following order: CANCEL, CANCEL, START.
3. Verify the error code displayed on the control by observing for longer than 1 minute. If the error returns, use the applicable procedure listed below for the actual error code that is displayed.

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	MESSAGE/DESCRIPTION SUGGESTED CORRECTIVE ACTION PROCEDURE
F0 Default	**E0**	No failure
F1 Internal	**E0** **E1** **E2** **E3** **E4** **E9**	INTERNAL ERROR INTERNAL ERROR INTERNAL ERROR INTERNAL ERROR INTERNAL ERROR INTERNAL ERROR
PROCEDURE: Before proceeding, perform steps 1 through 3 above chart to enter the Diagnostic mode. A. Unplug range or disconnect power. B. Replace the display board. C. Plug in range or reconnect power.		
F1 Internal	**E5** **E6** **E7** **E8**	INTERNAL ERROR INTERNAL ERROR INTERNAL ERROR INTERNAL ERROR
PROCEDURE: Before proceeding, perform steps 1 through 3 above chart to enter the Diagnostic mode. A. Unplug range or disconnect power. B. Replace the power board. C. Plug in range or reconnect power.		

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	MESSAGE/DESCRIPTION SUGGESTED CORRECTIVE ACTION PROCEDURE
F2 Keypad	**E0** **E1**	STUCK KEY (shorted key) KEYPAD DISCONNECT or KEYPAD DISCONNECTED
PROCEDURE: Before proceeding, perform steps 1 through 3 above chart to enter the Diagnostic mode. A. Unplug range or disconnect power. B. Check that the keypad is firmly connected. C. Plug in range or reconnect power and observe for longer than 1 minute. D. If error remains then go to step E. E. Unplug range or disconnect power. F. Replace keypad. G. Plug in range or reconnect power and observe for longer than 1 minute. H. If error remains then go to step I. I. Unplug range or disconnect power. J. Replace display board. K. Plug in range or reconnect power.		

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	MESSAGE/DESCRIPTION SUGGESTED CORRECTIVE ACTION PROCEDURE
F3 Sensors	E0	MAIN SENSOR OPEN (top oven sensor opened)
	E1	MAIN SENSOR SHORT or MAIN SENSOR SHORTED (top oven sensor shorted)
	E2	MEAT PROBE SHORTED
	E4	BOTTOM SENSOR OPEN (bottom oven sensor open)
	E5	LOWER SENSOR SHORT or BOTTOM SENSOR SHORT (bottom oven sensor shorted)
	E6	WD SENSOR OPEN (warming drawer sensor open)
	E7	WD SENSOR SHORTED (warming drawer sensor shorted)

PROCEDURE: Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.

A. Unplug range or disconnect power.

B. Open the back panels and make sure the indicated temperature sensor is plugged in.
   If it is not, plug it in to the connector and go to step I.
   If it is plugged in, go to step C.

C. Check connector P3 on the power board. Make sure it is plugged in and fully seated.
   If it is not, make the proper connection and go to step I.
   If it is already properly connected, go to step D.

D. Visually inspect the wires between P3 on the power board and the indicated temperature sensor. Make sure the wires are not cut or pinched. If the wires appear to be intact, unplug the P3 connector on the power board. Go to step E.

E. Measure indicated temperature sensor resistance value (measure between appropriate P3 connector pins). For the following sensors, the resistance value should read:

Main Oven Sensor	Between 931 and 2869 Ω. (Approx. 1080 Ω at room temp).
Lower Oven Sensor	Between 931 and 2869 Ω. (Approx. 1080 Ω at room temp).
Warm Drawer Sensor	Between 1,500 and 319,000 Ω. (Approx. 119,420 Ω at room temp).
Meat Probe Sensor	Between 1,300 and 103,000 Ω. (Approx. 59,000 Ω at room temp). (Insert meat probe into meat probe jack located inside the oven cavity prior to reading resistance.)

   Measure any P3 connector pin to chassis. Resistance value should read "open". If it does not, replace sensor harness. Repeat step E.
   If the indicated temperature sensor does not meet these requirements, go to step F.
   If the temperature sensor does meet the requirements, go to step I.

F. For MAIN, LOWER and WARM drawer sensors:
   Replace appropriate temperature sensor. Repeat step E.
   If the requirements are not met, replace sensor harness. Repeat step E.
   If the requirements are still not met, go to step G.
   For MEAT PROBE sensor:
   Replace meat probe sensor. Repeat step E.
   If the requirements are not met, replace sensor harness. Repeat step E.
   If the requirements are still not met, replace the meat probe jack. Repeat step E.
   If the meat probe sensor is still not meeting the requirements, go to step G.

G. Replace the power board. Ensure all connectors are properly seated.

H. Ensure all wiring connections are made. Replace the back panels.

I. Plug in range or reconnect power. Observe for longer than 1 minute.

J. Initiate a bake cycle. Let the cycle run at least 1 minute.
   If no error returns, cancel the cycle. The problem has been repaired.
   If the error occurs again, restart the troubleshooting procedure at step A.

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	MESSAGE/DESCRIPTION SUGGESTED CORRECTIVE ACTION PROCEDURE
F4	E2	OVER TEMP COOK
	E3	OVER TEMP CLEAN
	E7	OVER TEMP CAVITY 2 (temperature runaway error)

PROCEDURE: Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.

A. Press the BAKE key to cycle the bake relay on and off.
   If the bake relay does not turn on and off, go to step F.
   If the element or gas valve does not cycle with the relay, go to step D.
   If the element or gas valve did cycle on and off, go to step B.

B. Press the BROIL key to cycle the broil relay on and off.
   If the broil relay does not turn on and off, go to step F.
   If the element or gas valve does not cycle with the relay, go to step D.
   If the element or gas valve did cycle on and off, go to step C.

C. Press the CONVECT BAKE key to cycle the convect bake relay on and off.
   If the convect bake relay does not turn on and off, go to step F.
   If the element does not cycle with the relay, go to step D.
   If the element did cycle on and off, go to step D.

D. Unplug range or disconnect power.

E. Check integrity of all harness wires and connections between the power board and the electric elements. Ensure no shorted wires to cabinet.
   GAS MODELS:
   Ensure all wiring and connections between the control and spark module, spark module and bake / broil gas valve are good. If the wiring is good, go to step K.
   ELECTRIC MODELS:
   Ensure all wiring and connections between the power board and elements, and the power board and the display board are good.
   If the wiring connections are not intact, go to step J.
   If the wiring is good, go to step I.

F. Unplug range or disconnect power.

G. Replace the power board. Go to step P.

H. Unplug range or disconnect power.

I. Replace the display. Go to step P.

J. Replace the harness. Go to step P.

K. Replace spark module.

L. Plug in range or reconnect power.

M. Enter the Diagnostic mode described in steps 1-3 above chart on page 5. Press the BAKE key or the BROIL key to turn the bake or broil gas valve on and off.
   If the bake or broil valves will not turn off, go to step N.
   If the bake or broil valves will not turn off after being replaced, go to step H.
   If the bake or broil valves do turn off, go to step P.

N. Unplug range or disconnect power.

O. Replace the bake / broil gas valve. Go to step L.

P. Plug in range or reconnect power.

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	MESSAGE/DESCRIPTION SUGGESTED CORRECTIVE ACTION PROCEDURE
F5 Inputs	E0	DOOR LATCH MSMATCH or DOOR LATCH MISMATCH (Door and latch switches do not agree.)
	E1	NO OPERATING LATCH or LATCH NOT OPERATING
	E2	DOOR SWITCH FAULT
	E4	LATCH SWITCH FAULT
	E7	UNLOCK DOOR ERROR or CAN NOT UNLOCK DOOR

PROCEDURE: Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.

TO VERIFY DOOR SWITCH:

A. While in Diagnostics, open the oven door. "1" should appear in the second clock digit from the left. Close the oven door. The clock digit should toggle to "0".
   If the digit did not toggle, go to step B.
   If the digit did not toggle after replacing the door switch, go to step D.
   If the digit did not toggle after replacing the door switch harness, go to step F.
   If the digit did toggle, door switch is operating correctly.

B. Unplug range or disconnect power.

C. Replace door switch. (If door switch is integral to the door latch motor assembly, replace the entire door latch motor assembly). Go to step H.

D. Unplug range or disconnect power.

E. Check integrity of all harness wires and connections between the power board and the door switch. Ensure no shorted wires to cabinet.
   If the wiring is bad, replace the door switch harness. Go to step H.
   If the wiring is good, go to step H.

F. Unplug range or disconnect power.

G. Replace power board. Go to step H.

H. Plug in range or reconnect power.

I. Enter the Diagnostic mode described in steps 1-3 above chart on page 5. Repeat step A.

TO VERIFY DOOR LATCH SWITCH / MOTOR ASSEMBLY:

A. While in Diagnostic mode, press the CLEAN key to cycle the latch motor to the locked position. 1 should appear in the first clock digit from the left when locked. Press the CLEAN key to cycle the latch motor to the unlocked position. The clock digit should toggle to "0".
   If the digit did not toggle, go to step B.
   If motor runs continuously, wait until motor reaches the unlocked position, open the door. Press the CANCEL key, go to step B.
   If motor did not run, go to step H.
   If the digit did not toggle after replacing the door latch motor assembly, go to step D.
   If the digit did not toggle after replacing the door latch switch harness, go to step F.
   If the digit did toggle, door latch switch is operating correctly.

B. Unplug range or disconnect power.

C. Replace door latch motor assembly. Go to step K.

D. Unplug range or disconnect power.

E. Check integrity of all harness wires and connections between the power board and the door latch switch. Ensure no shorted wires to cabinet.
   If the wiring is bad, replace the door latch switch harness. Go to step K.
   If the wiring is good, go to step K.

F. Unplug range or disconnect power.

G. Replace power board. Go to step K.

H. Unplug range or disconnect power.

I. Check integrity of latch mechanism from cam / eccentric through actuating rod, to latch pawl and door slot. Ensure that pawl aligns with the door slot. Correct any mechanical malfunction.

J. Check continuity of the latch motor and of electrical connections between power board P4 and motor. If continuity is present, replace power board. Go to step K.

K. Plug in range or reconnect power.

L. Enter the Diagnostic mode described in steps 1-3 above chart on page 5. Repeat step A.

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	MESSAGE/DESCRIPTION SUGGESTED CORRECTIVE ACTION PROCEDURE
F6 Systems	E4	LOST COMMUNICATION

PROCEDURE: Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.

A. Unplug range or disconnect power.

B. Open the back panels and make sure the P2 connector is fully plugged in on the power board and on the display board.
   If it is not, plug it in to the connector and go to step F.
   If it is plugged in, go to step C.

C. Visually inspect all the four wires between P2 on the power board and P2 on the display board. Make sure the wires are not cut or pinched. If the wires appear to be intact, perform a continuity check between pin 4 of the power board and pin 4 of the display board. Do the same for pins 1, 2, & 5. Both of these checks should result in a reading of less than 5.
   If either of these checks fail, go to step E.
   If these checks pass, reconnect P2, then go to step D.

D. Replace the power board. Ensure all connectors are properly seated and then go to step F.

E. Replace the wiring harness (signal) and go to step F.

F. Ensure all wiring connections are made. Replace the back panels.

G. Plug in range or reconnect power. Observe for longer than 1 minute.

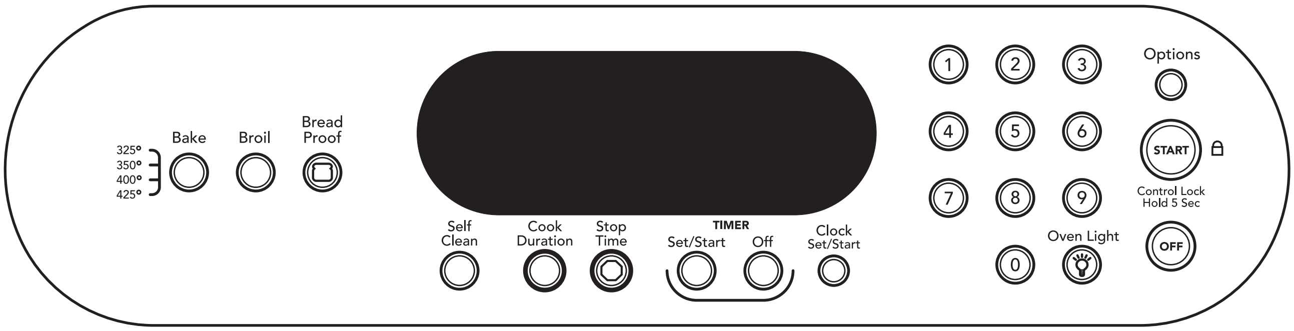
H. If error does not appear, initiate a bake cycle. Let the cycle run at least 1 minute.
   If no error occurs, cancel the cycle. The problem has been repaired.
   If the error occurs again, restart the troubleshooting procedure at step A (except in step D replace the display board if power board has already been replaced).

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	MESSAGE/DESCRIPTION SUGGESTED CORRECTIVE ACTION PROCEDURE
F6 Systems	E5	CANCEL KEY ERROR

PROCEDURE: If step 2 above chart on page 5 has not been performed, perform steps 2 and 3 to verify error. If error persists, replace the display board.

KITCHENAID & WHIRLPOOL
ELECTRONIC CONTROL SYSTEMS
(BY INDIVIDUAL MODEL)

KITCHENAID (TULSA-BUILT) FREESTANDING MODEL KERI201P

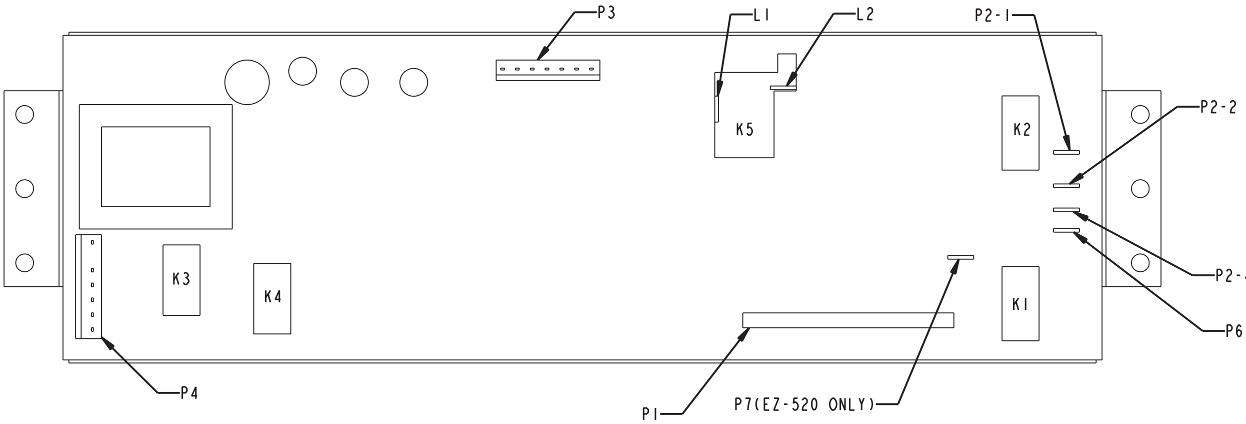


MODEL: KERI201P

Keypad Layout

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BROIL		■		■																
BAKE	■				■															
BREAD PROOF		■			■															
KEY #2									■	■										
TIMER SET/START					■	■														
CLOCK SET/START	■													■						
SELF CLEAN		■												■						
TIMER OFF			■											■						
OPTIONS				■										■						
KEY #9					■									■						
STOP TIME	■						■													
COOK DURATION		■				■														
KEY #8										■	■									
KEY #0											■	■								
OVEN LIGHT					■						■									
KEY #6											■			■						
KEY #5								■		■										
KEY #3													■	■						
KEY #7					■			■												
KEY #4						■		■												
KEY #1							■	■												
START																	■			
OFF/CANCEL																		■		

Display Board



Display Board Connector Pinouts

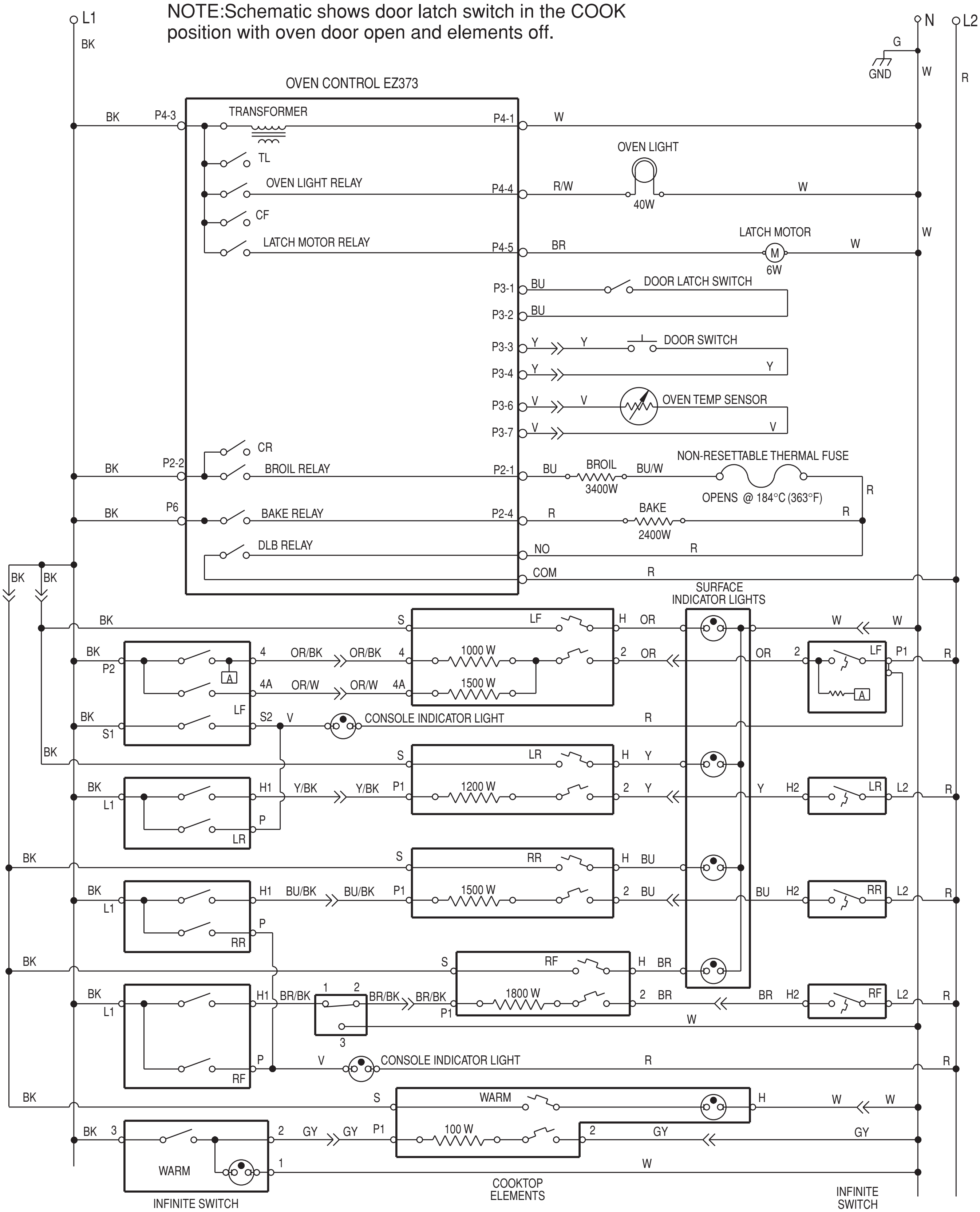
PIN	P2 FUNCTION
P2-1	BROIL RELAY OUTPUT
SPACE	
P2-2	AC LINE IN (120 VAC, 60 HZ)
P2-4	BAKE RELAY OUTPUT

0.250" FASTONS

PIN	P3 FUNCTION
P3-1	LOCK SENSE INPUT
P3-2	LOCK SENSE COMMON
P3-3	DOOR SENSE COMMON
P3-4	DOOR SENSE INPUT
P3-5	NO CONNECTION
P3-6	TEMP PROBE LOW-
P3-7	TEMP PROBE HIG+

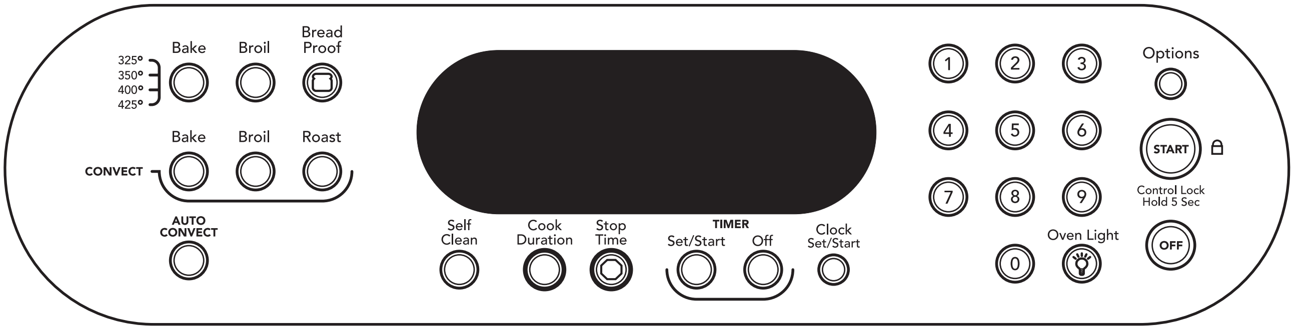
PIN	P4 FUNCTION
P4-1	AC NEUTRAL
P4-2	NO CONNECTION
P4-3	AC LINE (120 VAC, 60 HZ)
P4-4	OVEN LIGHT RELAY OUT (120 VAC)
P4-5	LOCK RELAY OUT (120 VAC, PULSED)
P4-6	CONVECT FAN
P4-7	TOP LIGHT

Wiring Diagram



PART NO. 9756993

KITCHENAID (TULSA-BUILT) FREESTANDING MODEL KERI203P

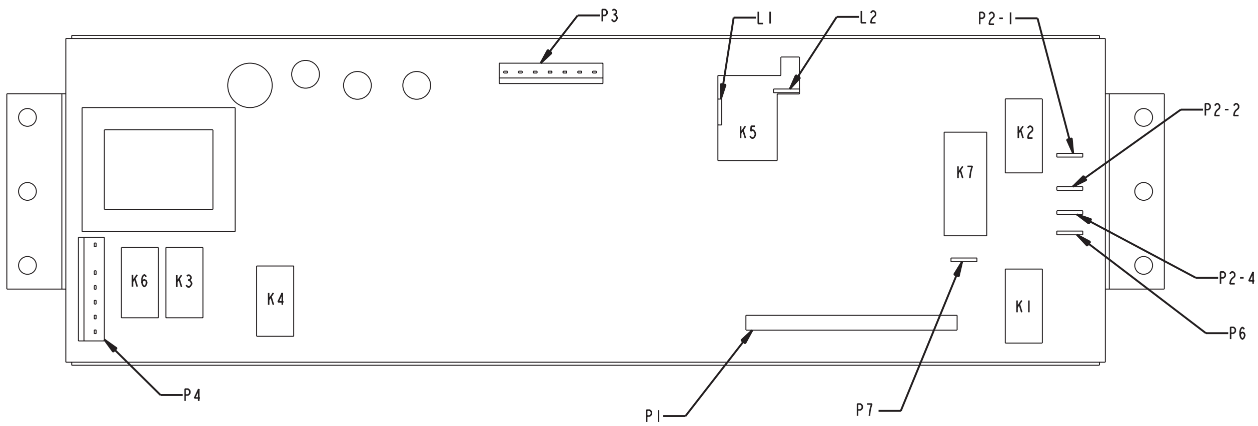


MODEL: KERI203P

Keypad Layout

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BROIL	■	■																		
BAKE	■		■																	
BREAD PROOF		■	■																	
AUTO CONVECT	■			■																
CONVECT BROIL		■		■																
CONVECT BAKE	■				■															
CONVECT ROAST		■			■															
KEY #2									■	■										
TIMER SET/START				■	■															
CLOCK SET/START	■													■						
SELF CLEAN		■												■						
TIMER/OFF			■											■						
OPTIONS				■										■						
KEY #9					■									■						
STOP TIME	■						■													
COOK DURATION		■				■														
KEY #8										■	■									
KEY #0											■	■								
OVEN LIGHT					■						■									
KEY #6											■			■						
KEY #5								■		■										
KEY #3												■	■							
KEY #7					■			■												
KEY #4						■		■												
KEY #1							■	■												
START																	■			
OFF/CANCEL																		■		

Display Board



Display Board Connector Pinouts

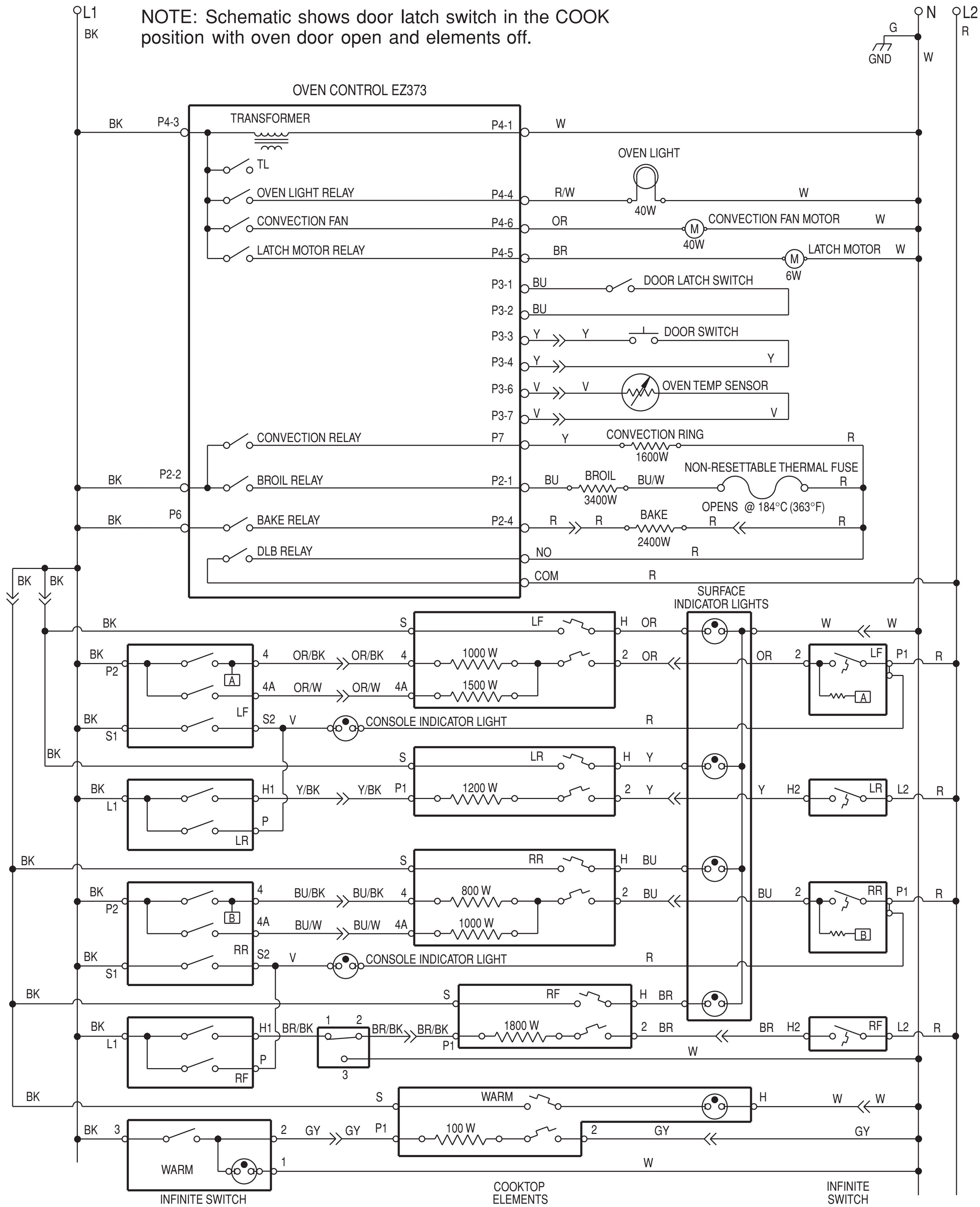
PIN	P2 FUNCTION
P2-1	BROIL RELAY OUTPUT
SPACE	
P2-2	AC LINE IN (120 VAC, 60 HZ)
P2-4	BAKE RELAY OUTPUT

PIN	P3 FUNCTION
P3-1	LOCK SENSE INPUT
P3-2	LOCK SENSE COMMON
P3-3	DOOR SENSE COMMON
P3-4	DOOR SENSE INPUT
P3-5	NO CONNECTION
P3-6	TEMP PROBE LOW-
P3-7	TEMP PROBE HIG+

PIN	P4 FUNCTION
P4-1	AC NEUTRAL
P4-2	NO CONNECTION
P4-3	AC LINE (120 VAC, 60 HZ)
P4-4	OVEN LIGHT RELAY OUT (120 VAC)
P4-5	LOCK RELAY OUT (120 VAC, PULSED)
P4-6	CONVECT FAN
P4-7	TOP LIGHT

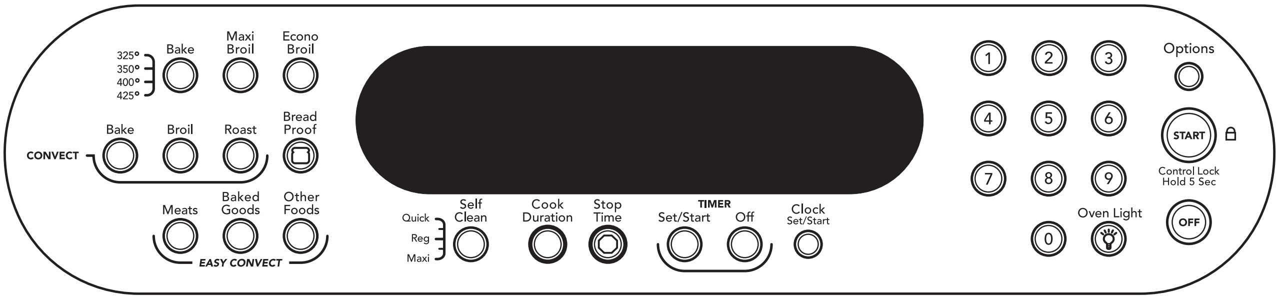
P6 FUNCTION: LINE FOR BAKE
P7 FUNCTION: CONVECTION
P1 FUNCTION: KEYBOARD INTERFACE

Wiring Diagram



PART NO. 9756997

KITCHENAID (TULSA-BUILT) FREESTANDING MODEL KERA205P

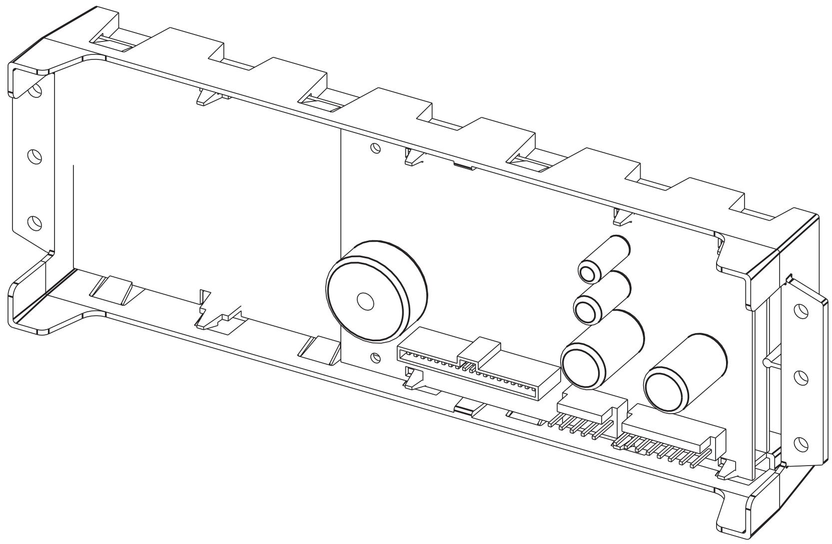


MODEL: KERA205P

Keypad Layout

KEYPAD LAYOUT							
Model KERA205P							
	16	15	14	13	12	11	10
	FUNCTION	FUNCTION	FUNCTION	FUNCTION	FUNCTION	FUNCTION	
8		BAKE	CLEAN	COOK TIME	3	OPT	OPEN
7	CONVECT BAKE	CONVECT BROIL	STOP TIME	TIMER	6	START	OPEN
6		MEATS	TIMER OFF	CLOCK	9		205
5	MAXI BROIL	ECONO BROIL	1	2	OVEN LIGHT		OPEN
4	CONVECT ROAST	BREAD PROOF	4	5			OPEN
3	BAKED GOODS	OTHER FOODS	7	8			OPEN
2				0			OPEN

Display Board & Connector Pinouts



CONN HDR-ST LOCK W/PEG 8 PIN 7A.156 AMP 644615-8	
P1-1	FILAMENT
P1-2	CENTER TAP
P1-3	FILAMENT
P1-4	12 VDC
P1-5	12 VDC
P1-6	OPEN
P1-7	42 VDC
P1-8	42 VDC

CONN HDR-ST LOCK W/PEG 5 PIN 7A.156 AMP 644615-5	
P2-1	12 VDC
P2-2	12 VDC
P2-3	OPEN
P2-4	DATA
P2-5	DGND

Low Voltage Transformer

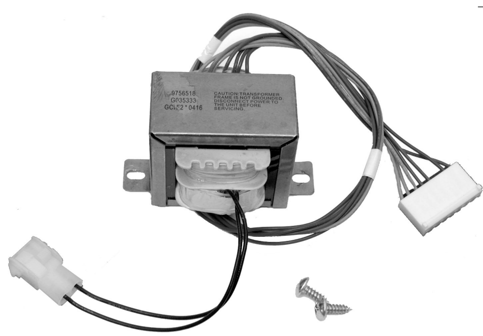


FIGURE 1

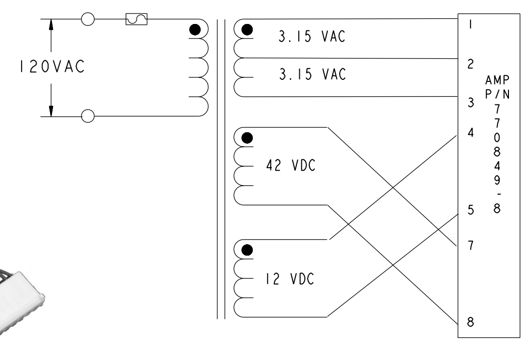


FIGURE 2

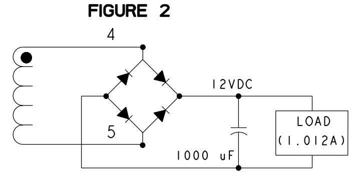
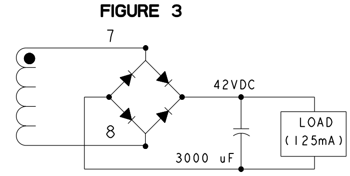
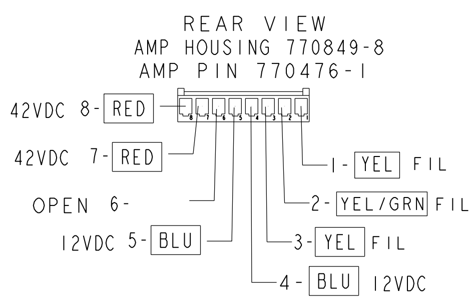
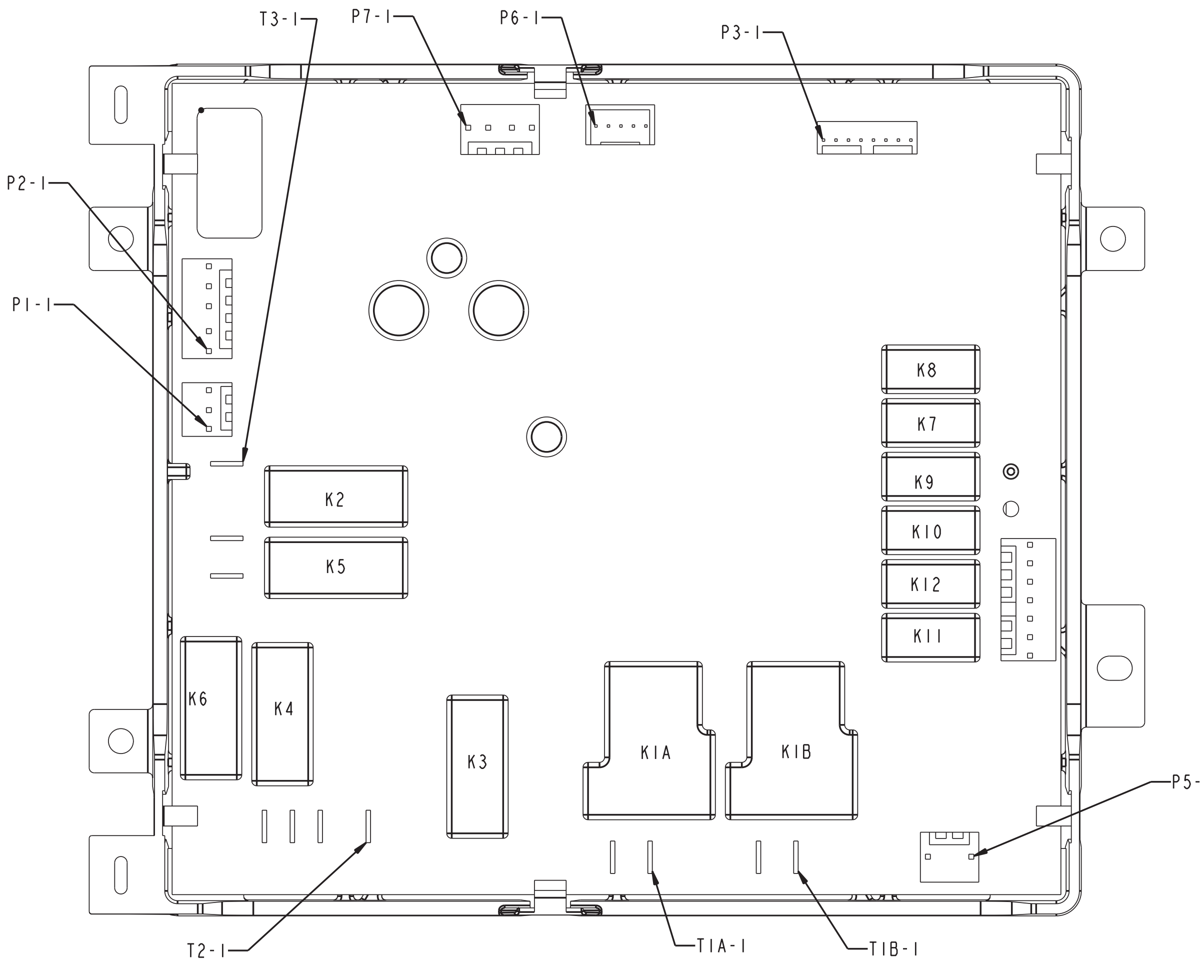


FIGURE 3



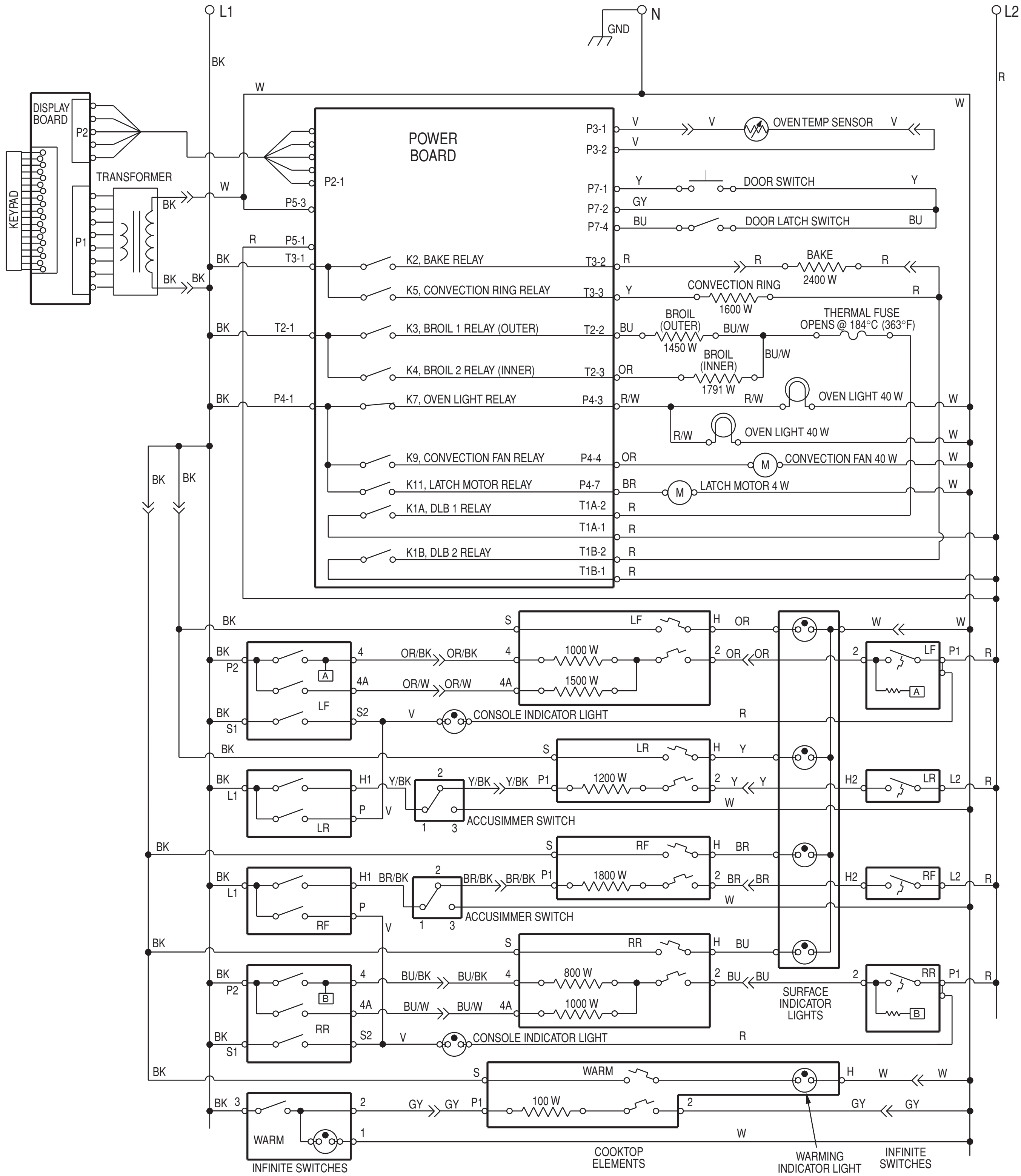


Power Board



T3-1
P7-1
P6-1
P3-1
P2-1
P1-1
K8
K7
K9
K10
K12
K11
K2
K5
K6
K4
K3
K1A
K1B
P5-1
T2-1
T1A-1
T1B-1

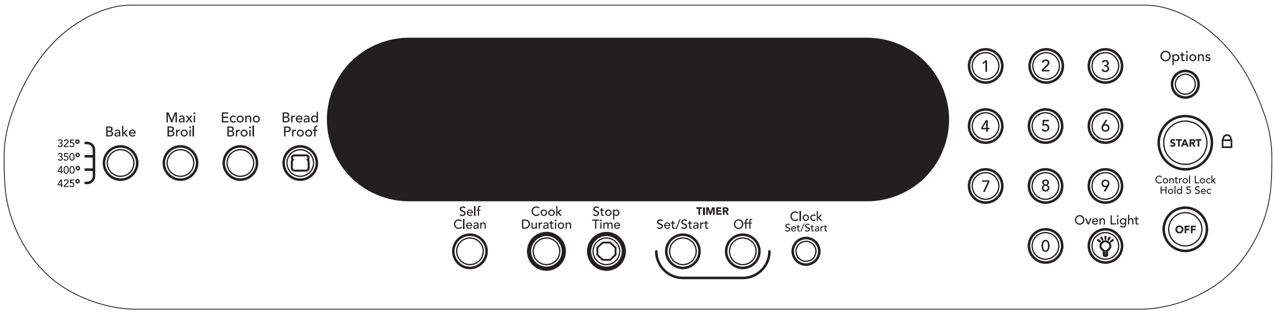
Wiring Diagram



NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.

PART NO. 9758315 REV. A

KITCHENAID (OXFORD-BUILT) SLIDE-IN MODEL KESI901P

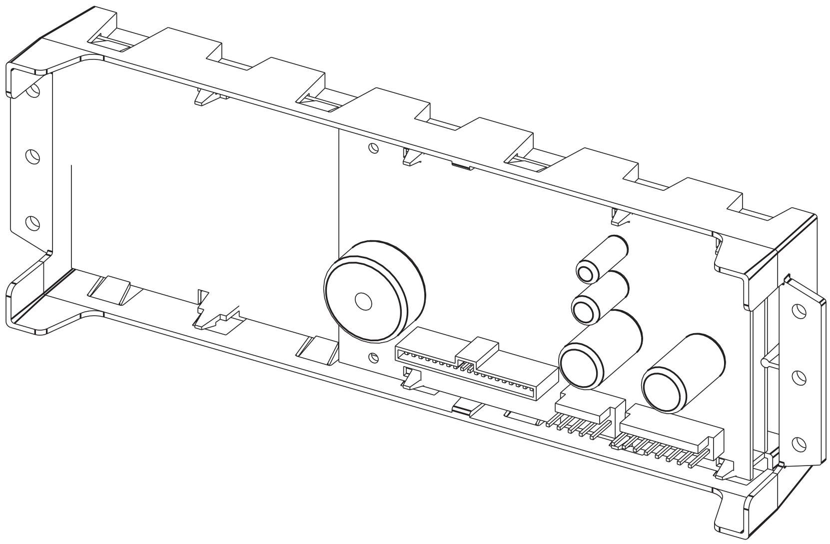


MODEL: KESI901P

Keypad Layout

MODEL KESI901P							
	16	15	14	13	12	11	10
8			CLEAN	COOK TIME	3	OPT	OPEN
7	BAKE	MAXI BROIL	STOP TIME	TIMER	6	START	OPEN
6			TIMER OFF	CLOCK	9		OPEN
5	ECONO BROIL		1	2	OVEN LIGHT		OPEN
4		BREAD PROOF	4	5			OPEN
3			7	8			OPEN
2				0			OPEN

Display Board & Connector Pinouts



CONN HDR-ST LOCK W/PEG 8 PIN 7A.156 AMP 644615-8	
P1-1	FILAMENT
P1-2	CENTER TAP
P1-3	FILAMENT
P1-4	12 VDC
P1-5	12 VDC
P1-6	OPEN
P1-7	42 VDC
P1-8	42 VDC

CONN HDR-ST LOCK W/PEG 5 PIN 7A.156 AMP 644615-5	
P2-1	12 VDC
P2-2	12 VDC
P2-3	OPEN
P2-4	DATA
P2-5	DGND

Low Voltage Transformer



FIGURE 1

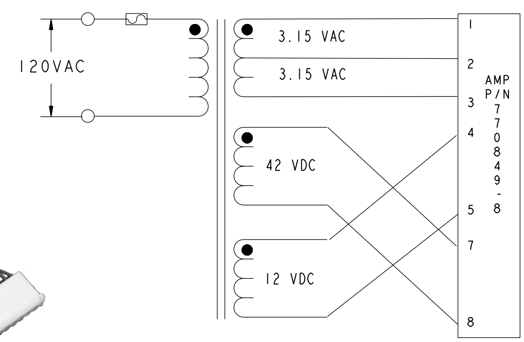


FIGURE 2

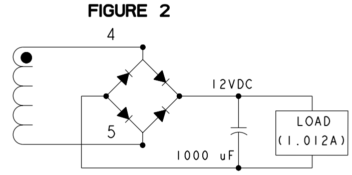
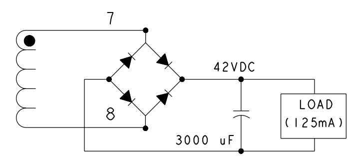
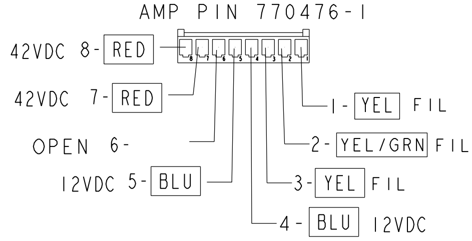


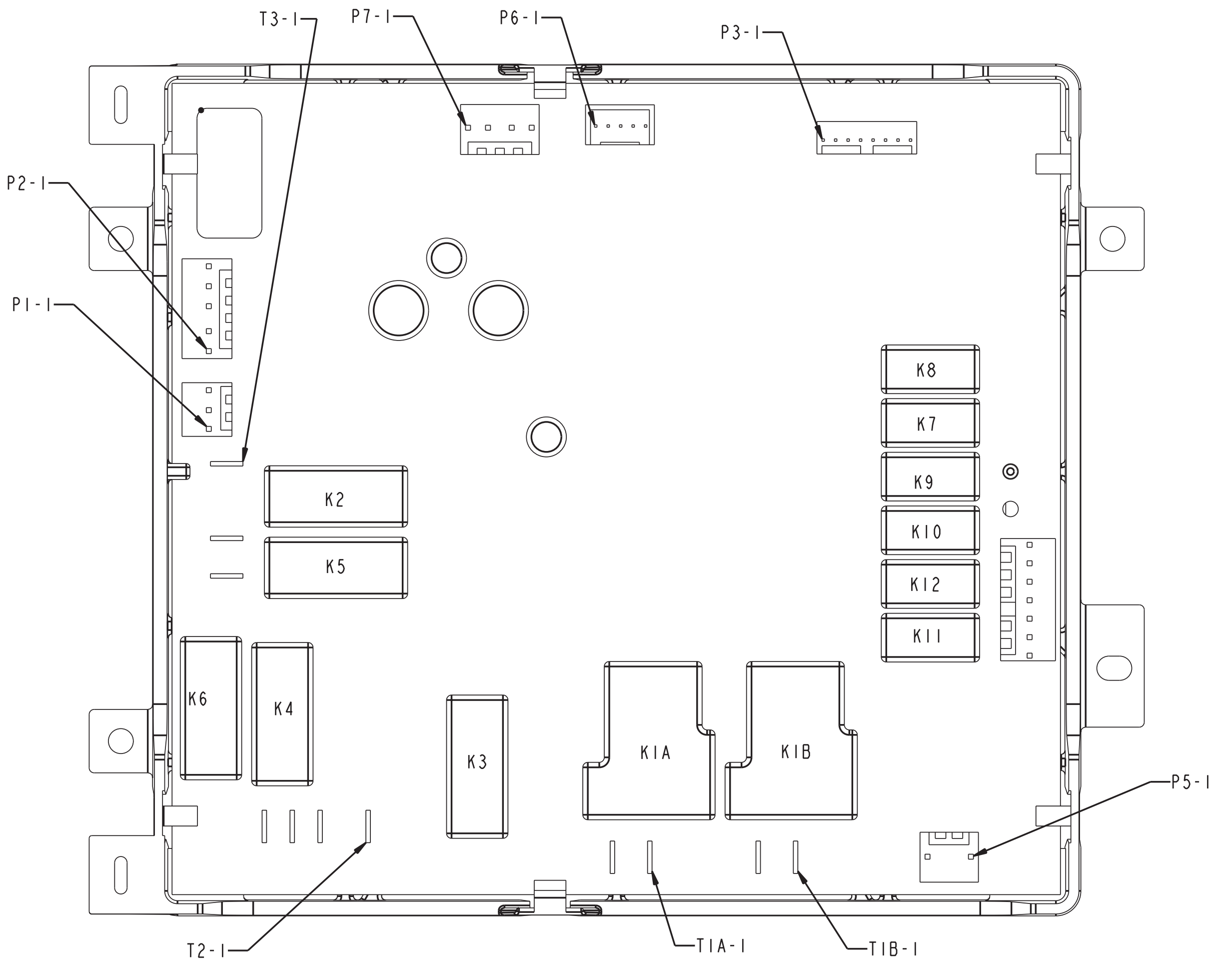
FIGURE 3



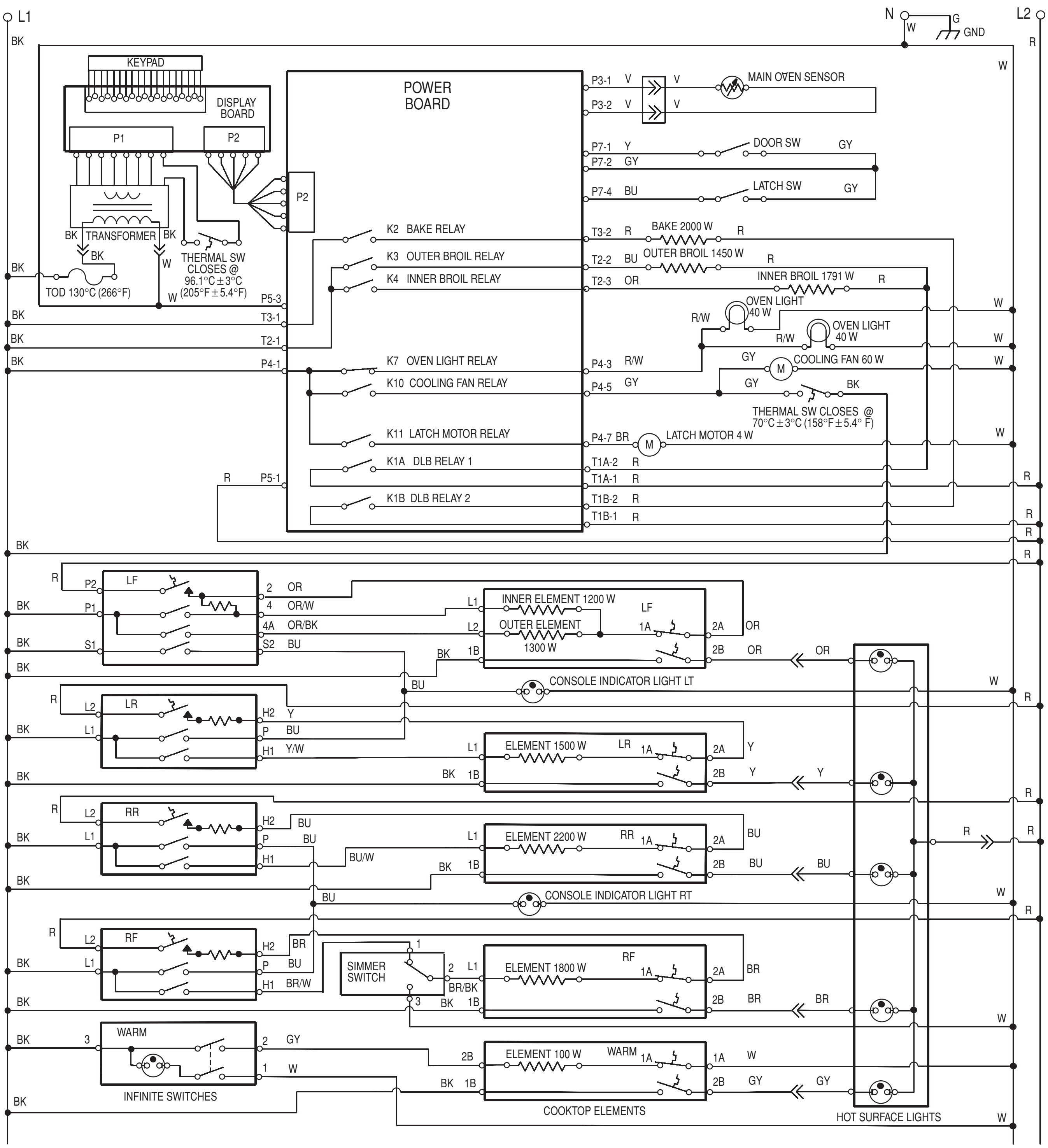
REAR VIEW
AMP HOUSING 770849-8
AMP PIN 770476-1



Power Board


T3-1
P7-1
P6-1
P3-1
P2-1
P1-1
K8
K7
K9
K10
K12
K11
K2
K5
K6
K4
K3
K1A
K1B
P5-1
T2-1
T1A-1
T1B-1

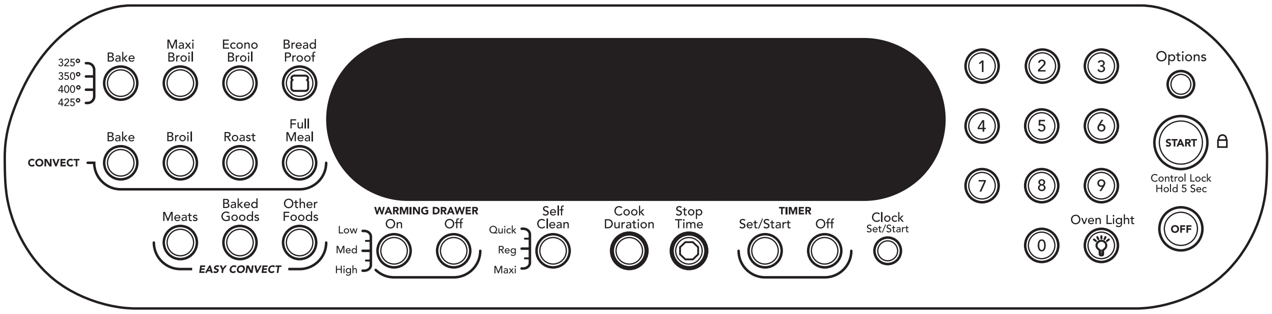
Wiring Diagram



NOTE:Schematic shows door latch switch in the COOK position with oven door open and elements off.

PART NO. 9757663

KITCHENAID (OXFORD-BUILT) FREESTANDING MODELS KERA807P & KERV908P, AND SLIDE-IN MODELS KESA907P & KESV808P

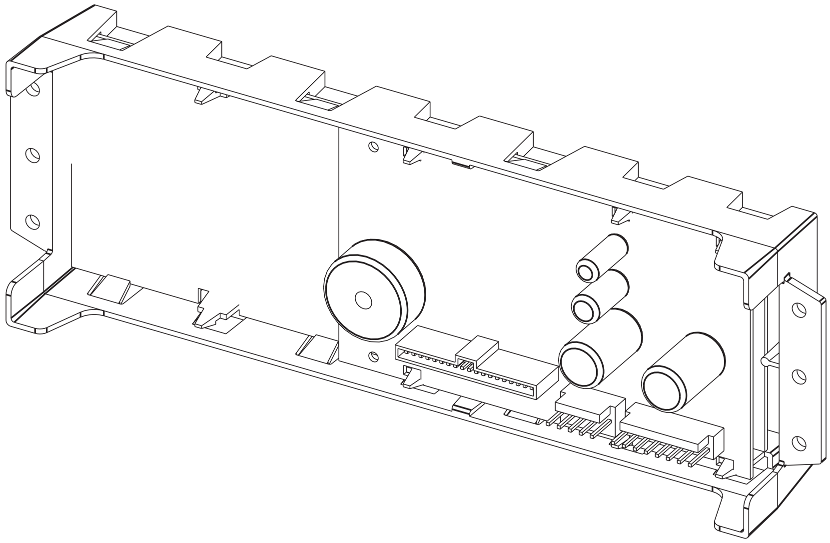


MODELS: KERA807P, KERV908P, KESA907P, & KESV808P

Keypad Layout

MODELS KERA807P, KERV908P, KESA907P & KESV808P							
	16	15	14	13	12	11	10
8	BAKE	MAXI BROIL	CLEAN	COOK TIME	3	OPT	OPEN
7	CONVECT BAKE	CONVECT BROIL	STOP TIME	TIMER	6	START	OPEN
6		MEATS	TIMER OFF	CLOCK	9		OPEN
5	ECONO BROIL	BREAD PROOF	1	2	OVEN LIGHT		OPEN
4	CONVECT ROAST	FULL MEAL	4	5			OPEN
3	BAKED GOODS	OTHER FOODS	7	8			OPEN
2	WARM DRAWER	WARM OFF	TOP LIGHT	0			OPEN

Display Board & Connector Pinouts



CONN HDR-ST LOCK W/PEG 8 PIN 7A.156 AMP 644615-8	
P1-1	FILAMENT
P1-2	CENTER TAP
P1-3	FILAMENT
P1-4	12 VDC
P1-5	12 VDC
P1-6	OPEN
P1-7	42 VDC
P1-8	42 VDC

CONN HDR-ST LOCK W/PEG 5 PIN 7A.156 AMP 644615-5	
P2-1	12 VDC
P2-2	12 VDC
P2-3	OPEN
P2-4	DATA
P2-5	DGND

Low Voltage Transformer



FIGURE 1

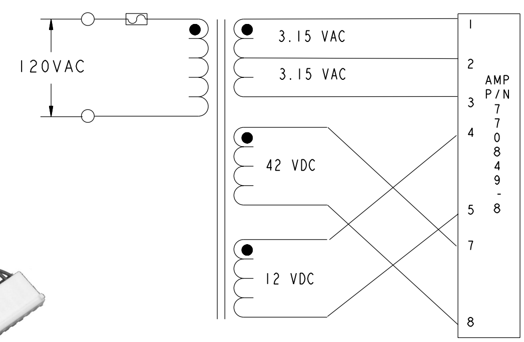


FIGURE 2

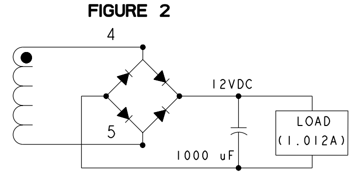
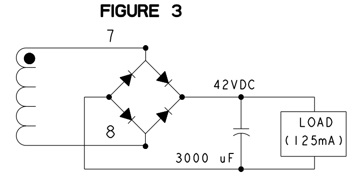
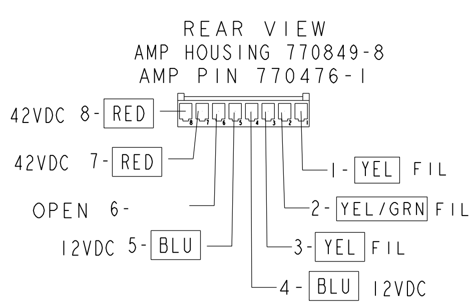
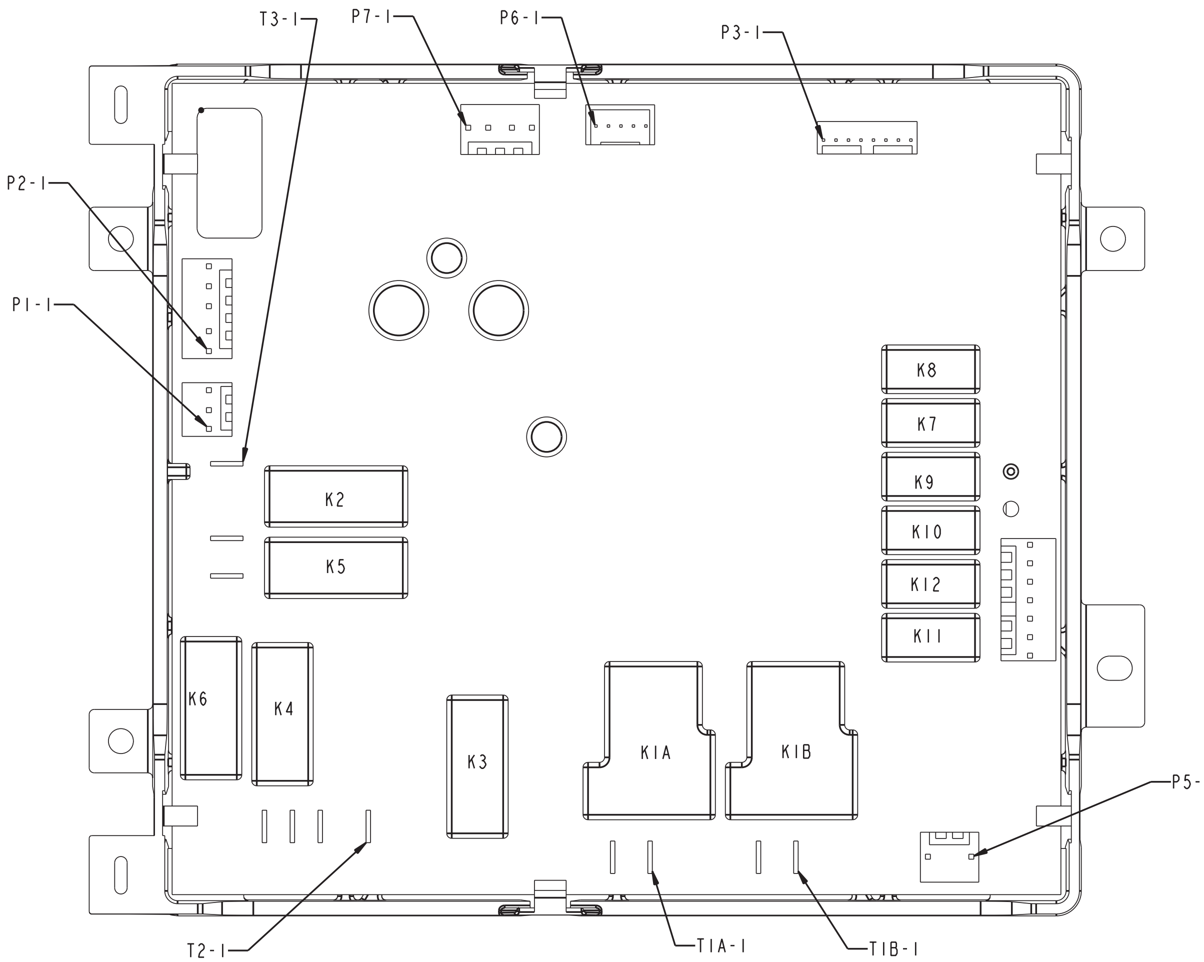


FIGURE 3



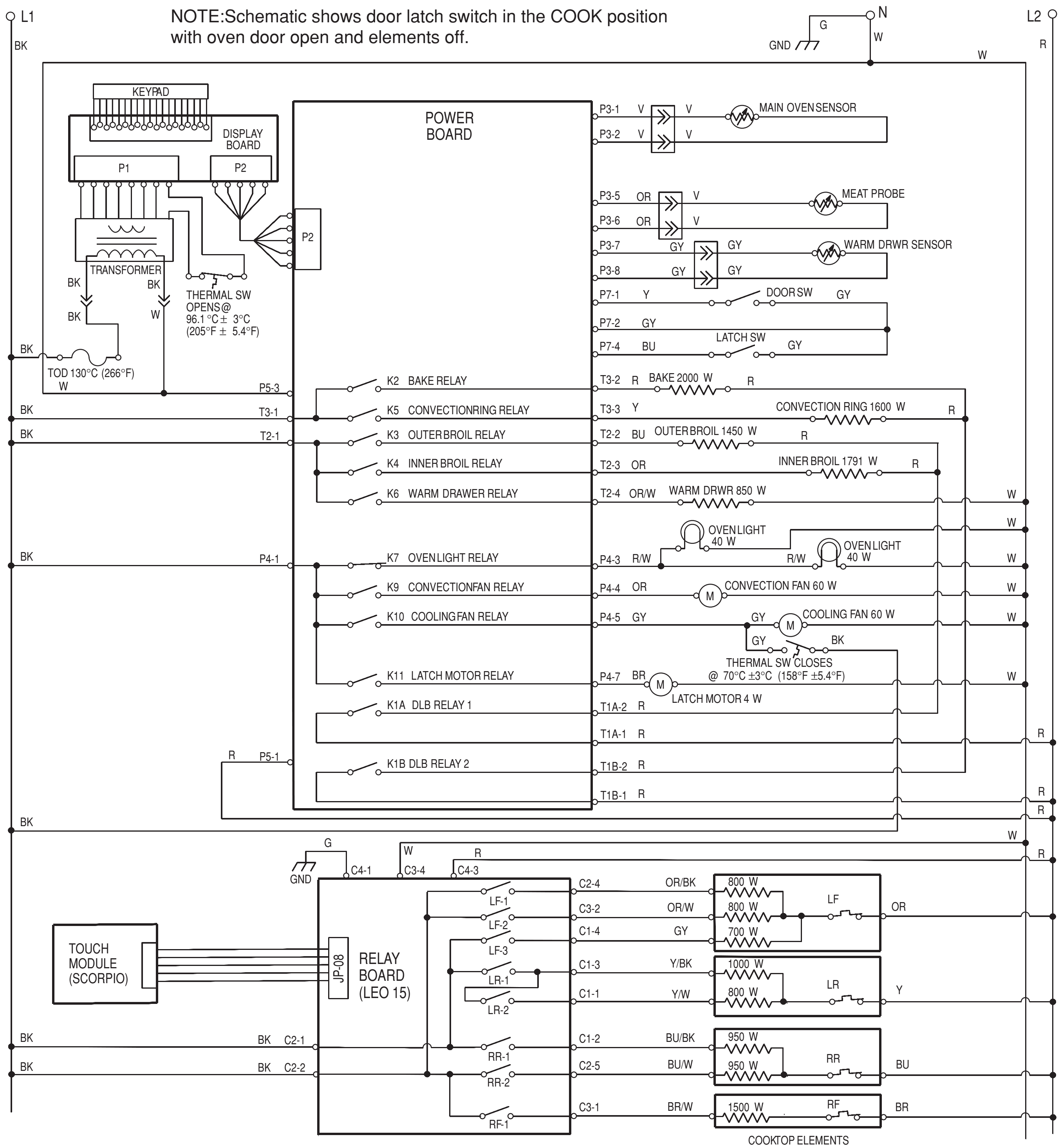


Power Board



T3-1
P7-1
P6-1
P3-1
P2-1
P1-1
K8
K7
K9
K10
K12
K11
K2
K5
K6
K4
K3
K1A
K1B
P5-1
T2-1
T1A-1
T1B-1

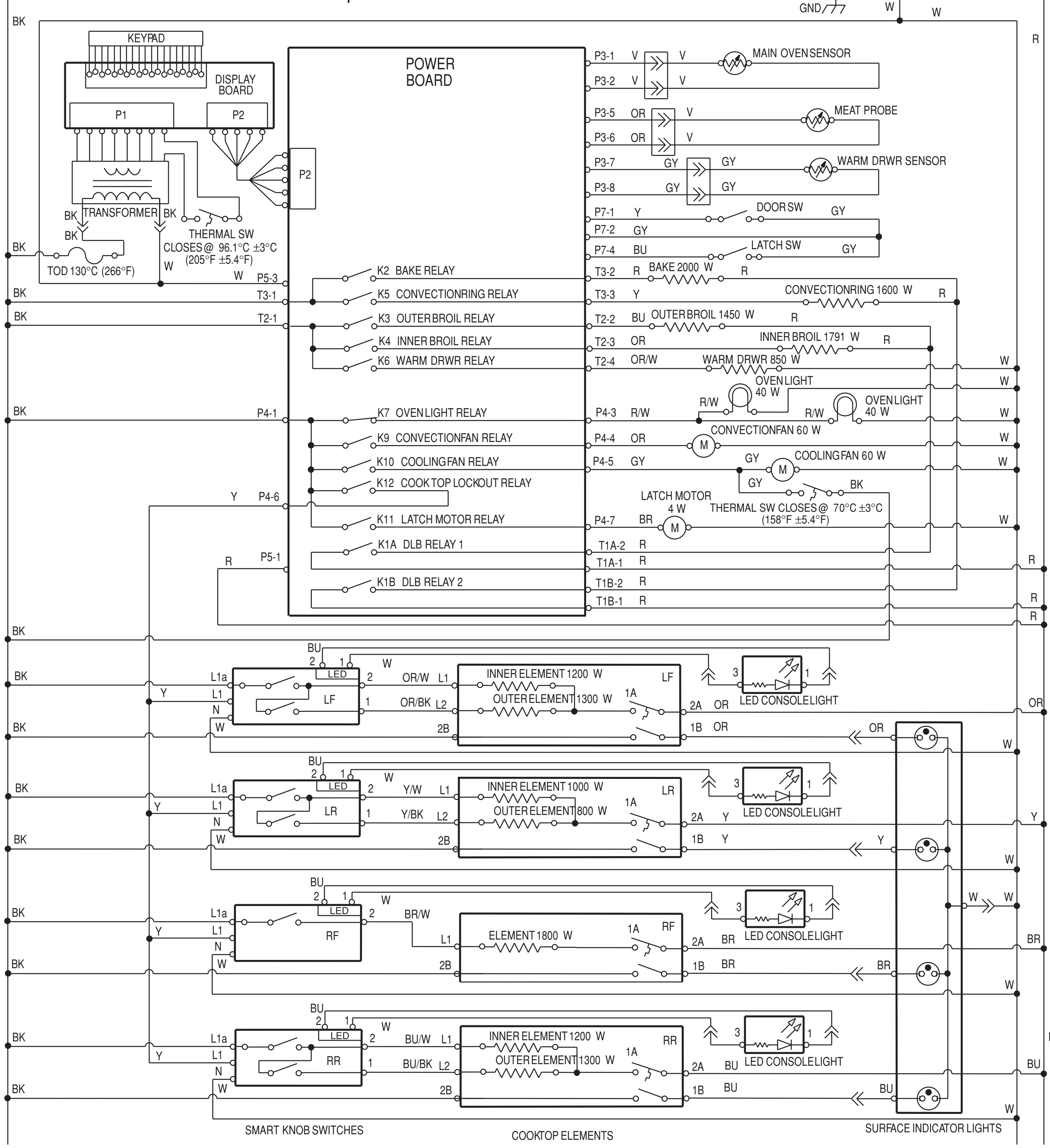
Wiring Diagram
Models KESV808P & KERV908P



Part No. 9757661

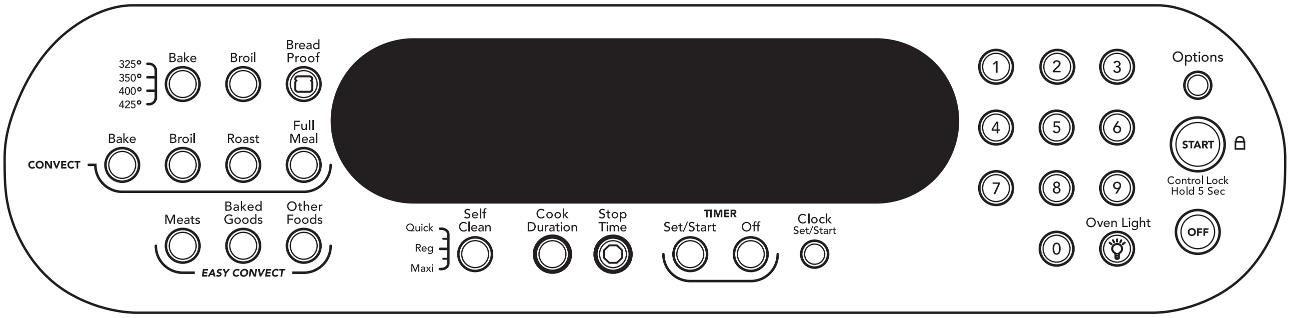
Wiring Diagram
Models KERA807P & KESA907P

NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.



Part No. 9757662

KITCHENAID (OXFORD-BUILT) FREESTANDING MODEL KGRA806P & SLIDE-IN MODEL KGSA906P

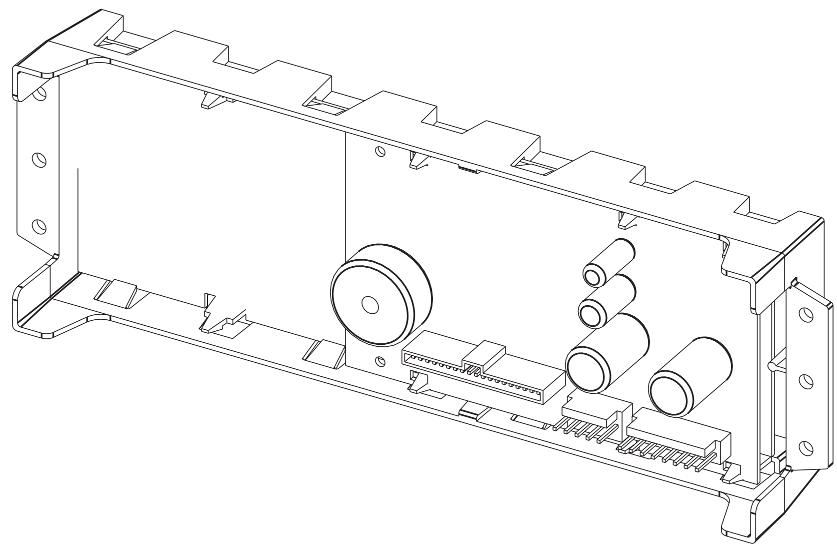


MODELS: KGRA806P & KGSA906P

Keypad Layout

	MODELS KGRA806P & KGSA906P						
	16	15	14	13	12	11	10
8		BAKE	CLEAN	COOK TIME	3	OPTIONS	OPEN
7	CONVECT BAKE	CONVECT BROIL	STOP TIME	TIMER	6	START	OPEN
6		MEATS	TIMER OFF	CLOCK	9		OPEN
5	MAXI BROIL	BREAD PROOF	1	2	OVEN LIGHT		OPEN
4	CONVECT ROAST	FULL MEAL	4	5			OPEN
3	BAKED GOODS	OTHER FOODS	7	8			OPEN
2				0			OPEN

Display Board & Connector Pinouts



CONN HDR-ST LOCK W/PEG 8 PIN 7A.156 AMP 644615-8	
P1-1	FILAMENT
P1-2	CENTER TAP
P1-3	FILAMENT
P1-4	12 VDC
P1-5	12 VDC
P1-6	OPEN
P1-7	42 VDC
P1-8	42 VDC

CONN HDR-ST LOCK W/PEG 5 PIN 7A.156 AMP 644615-5	
P2-1	12 VDC
P2-2	12 VDC
P2-3	OPEN
P2-4	DATA
P2-5	DGND

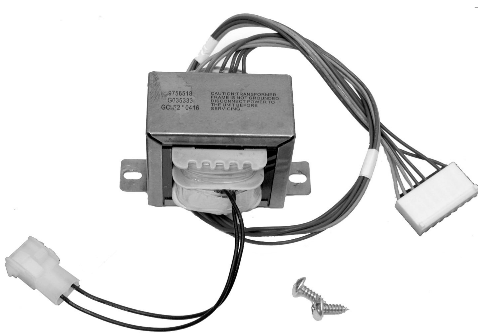


FIGURE 1

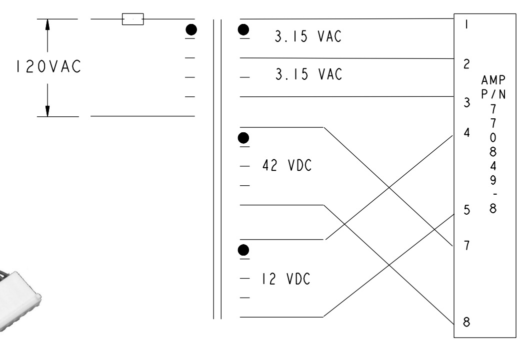


FIGURE 2

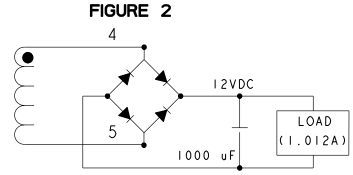
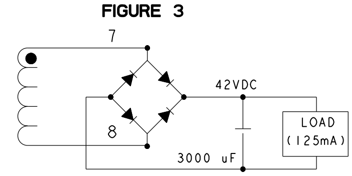
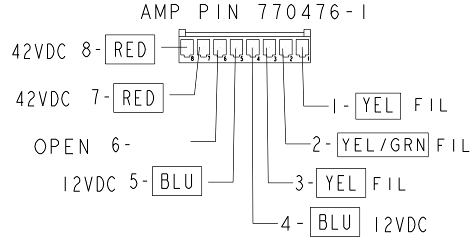


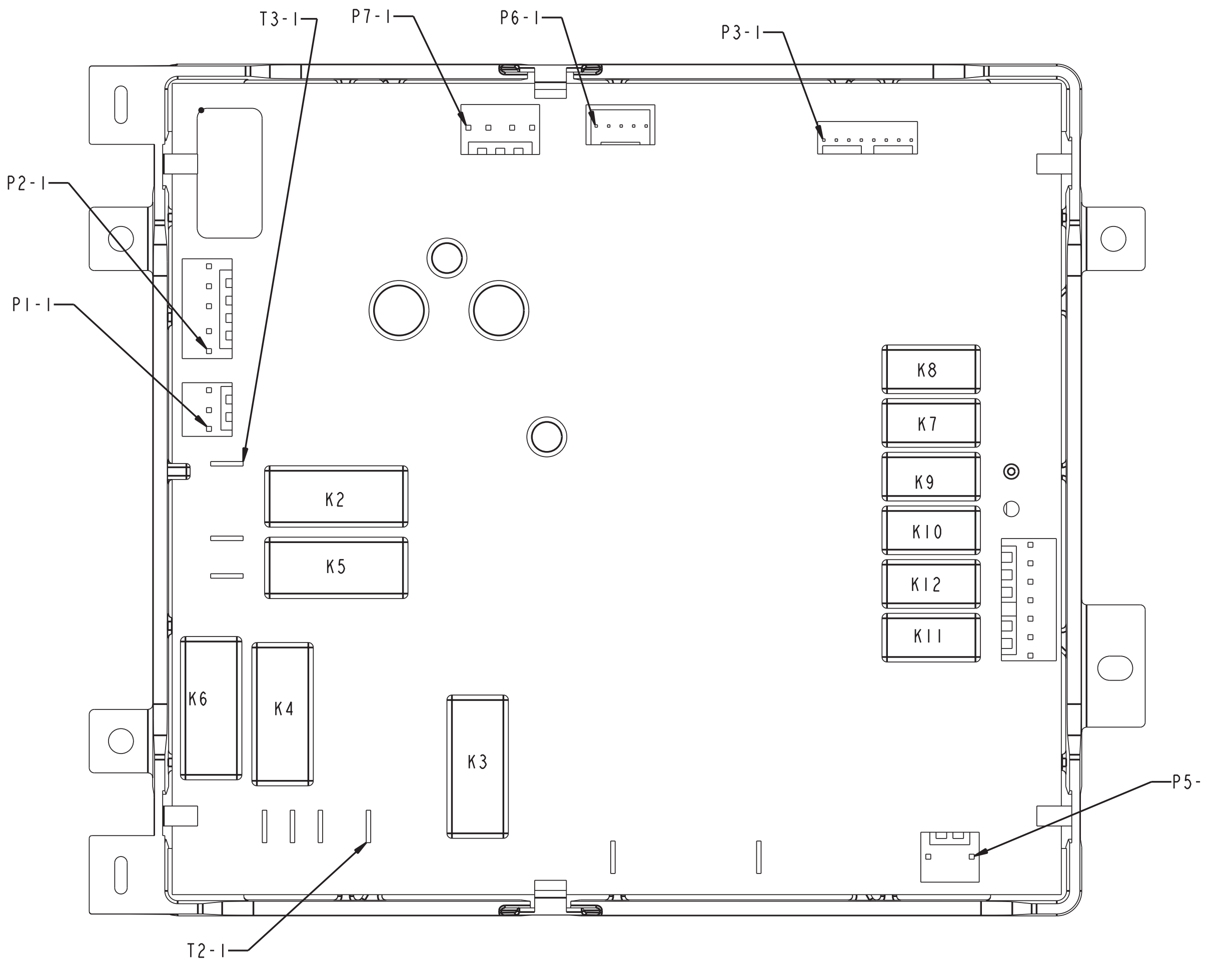
FIGURE 3



REAR VIEW
AMP HOUSING 770849-8
AMP PIN 770476-1

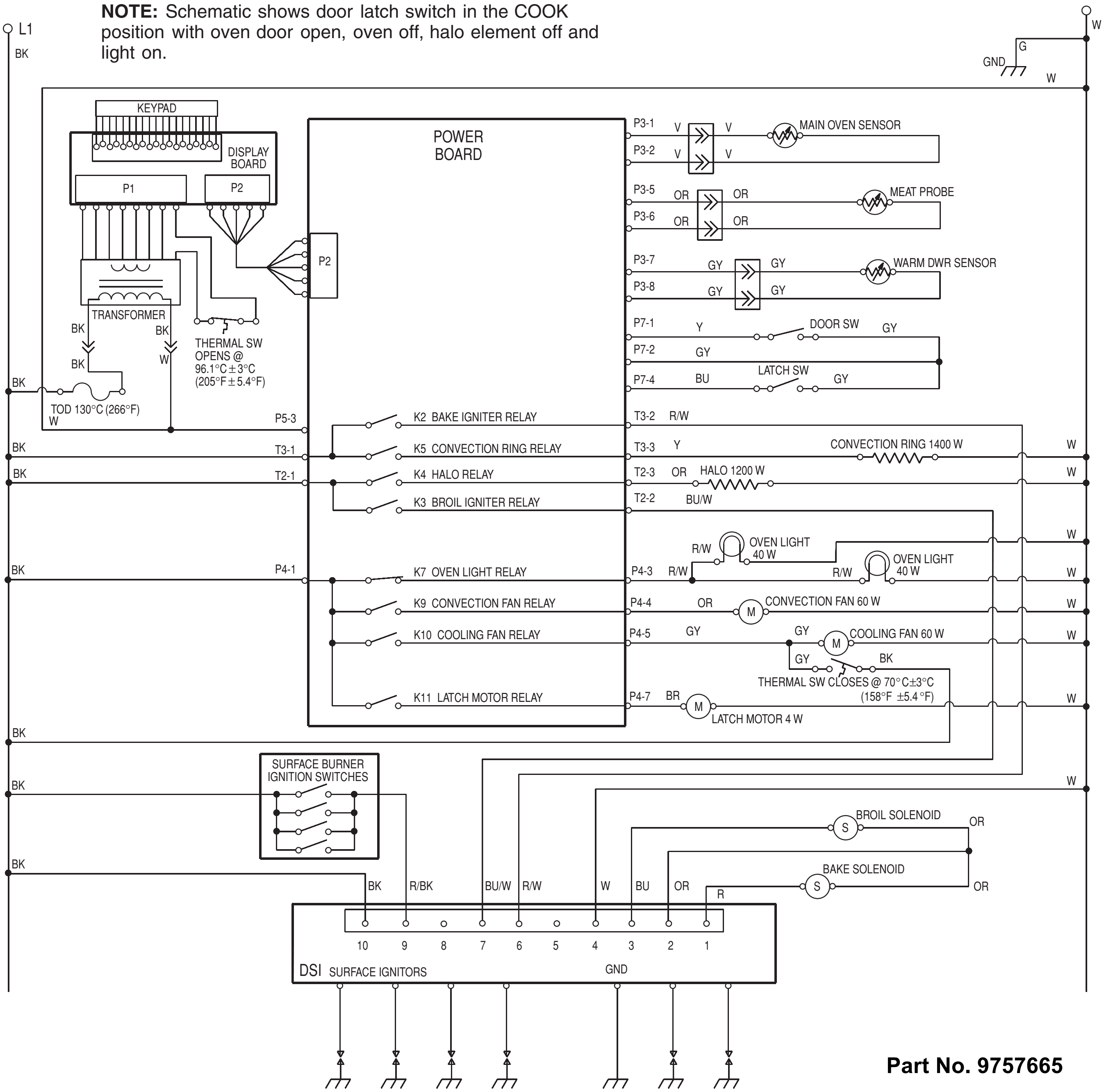


Power Board



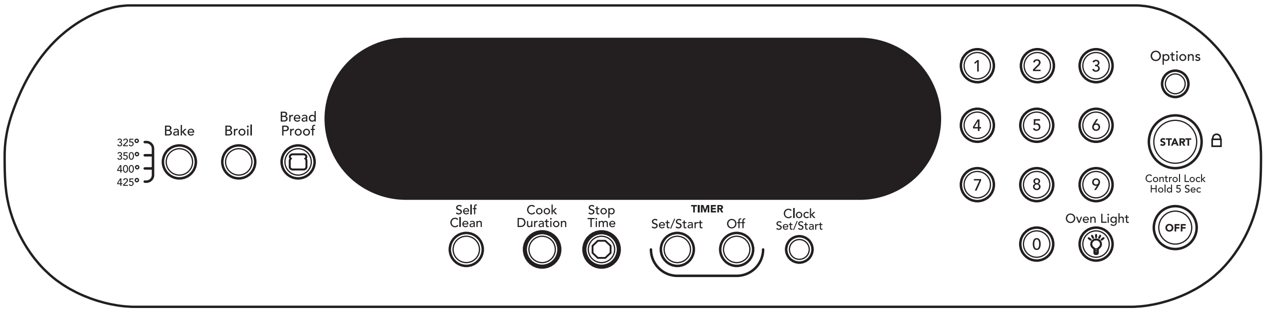
Wiring Diagram

NOTE: Schematic shows door latch switch in the COOK position with oven door open, oven off, halo element off and light on.



Part No. 9757665

KITCHENAID (OXFORD-BUILT) FREESTANDING MODEL KGRI801P & SLIDE-IN MODEL KGSI901P

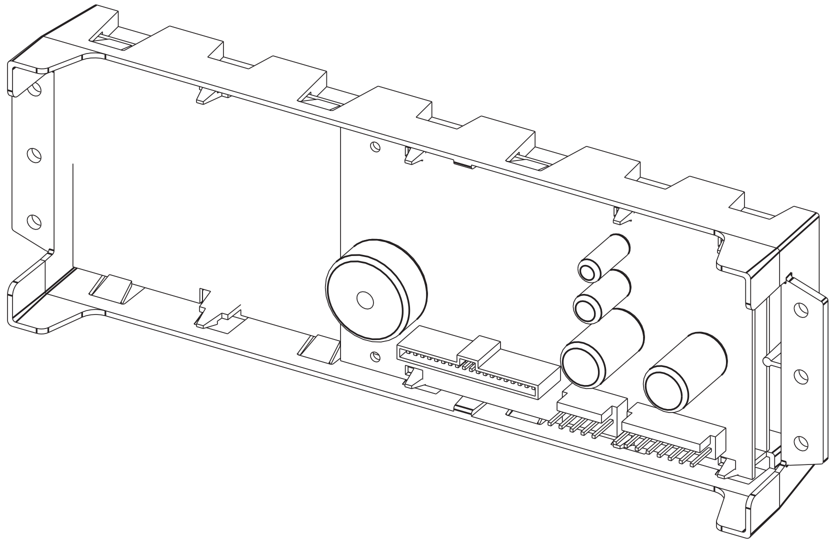


MODELS: KGRI801P & KGSI901P

Keypad Layout

MODELS KGRI801P & KGSI901P							
	16	15	14	13	12	11	10
8		BAKE	CLEAN	COOK TIME	3	OPT	OPEN
7			STOP TIME	TIMER	6	START	OPEN
6			TIMER OFF	CLOCK	9		OPEN
5			1	2	OVEN LIGHT		OPEN
4	MAXI BROIL	BREAD PROOF	4	5			OPEN
3			7	8			OPEN
2				0			OPEN

Display Board & Connector Pinouts



CONN HDR-ST LOCK W/PEG 8 PIN 7A.156 AMP 644615-8	
P1-1	FILAMENT
P1-2	CENTER TAP
P1-3	FILAMENT
P1-4	12 VDC
P1-5	12 VDC
P1-6	OPEN
P1-7	42 VDC
P1-8	42 VDC

CONN HDR-ST LOCK W/PEG 5 PIN 7A.156 AMP 644615-5	
P2-1	12 VDC
P2-2	12 VDC
P2-3	OPEN
P2-4	DATA
P2-5	DGND

Low Voltage Transformer

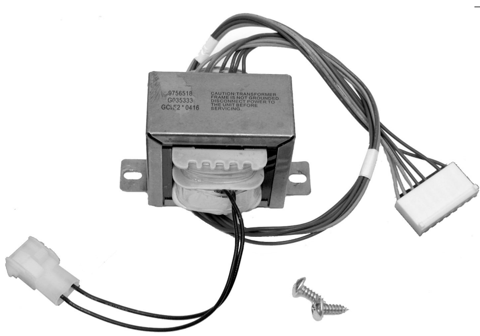


FIGURE 1

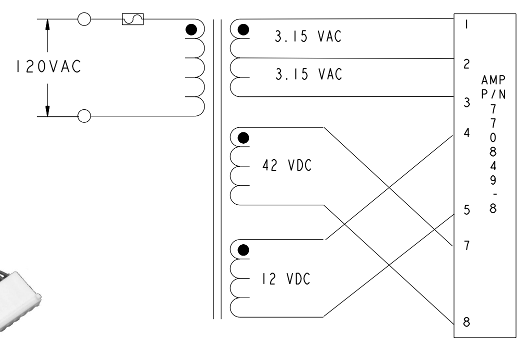


FIGURE 2

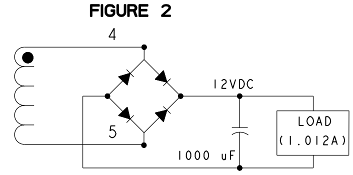
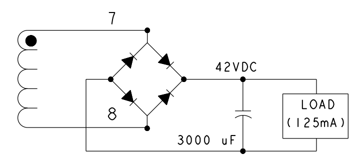
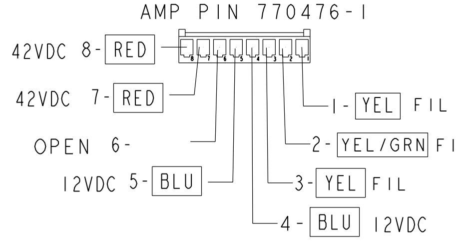


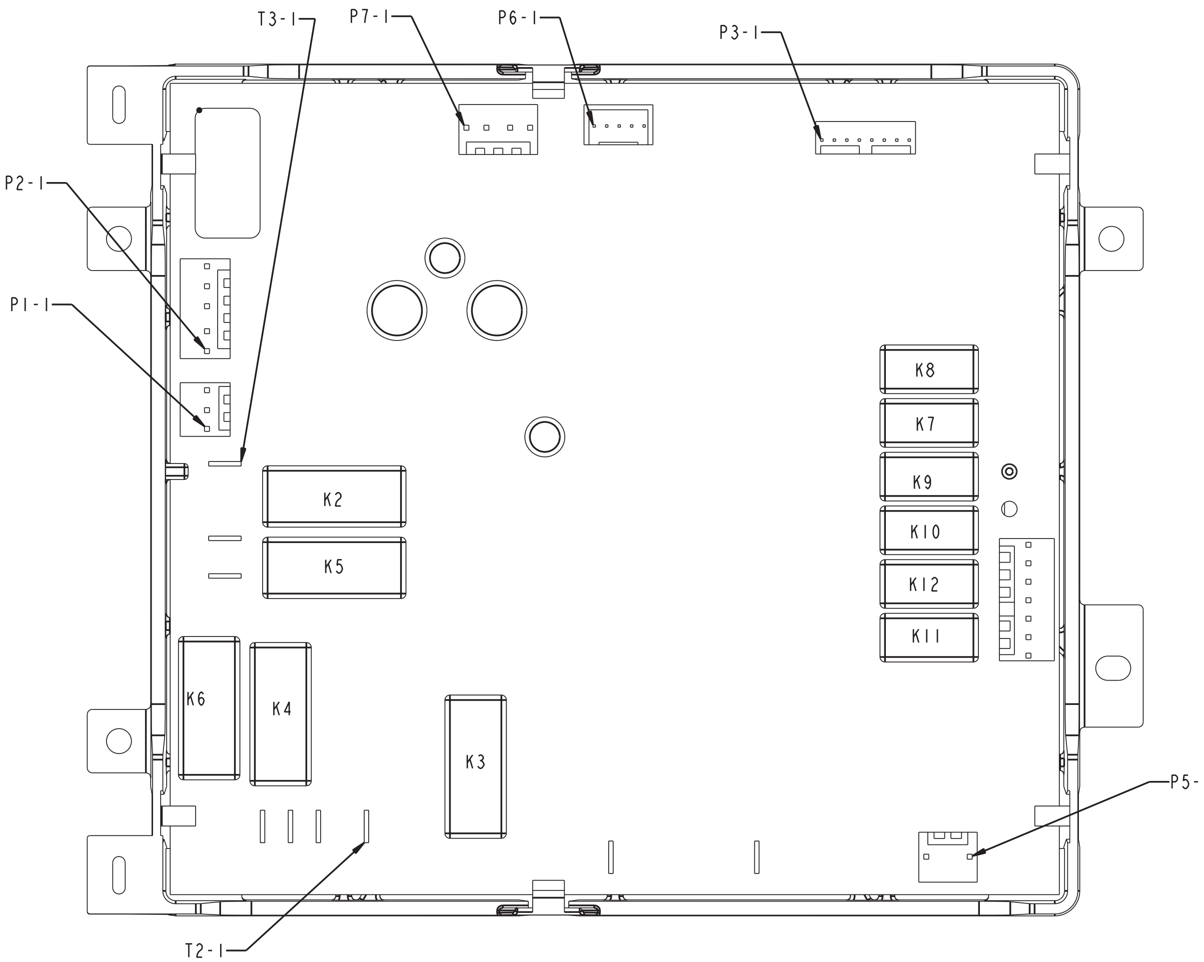
FIGURE 3



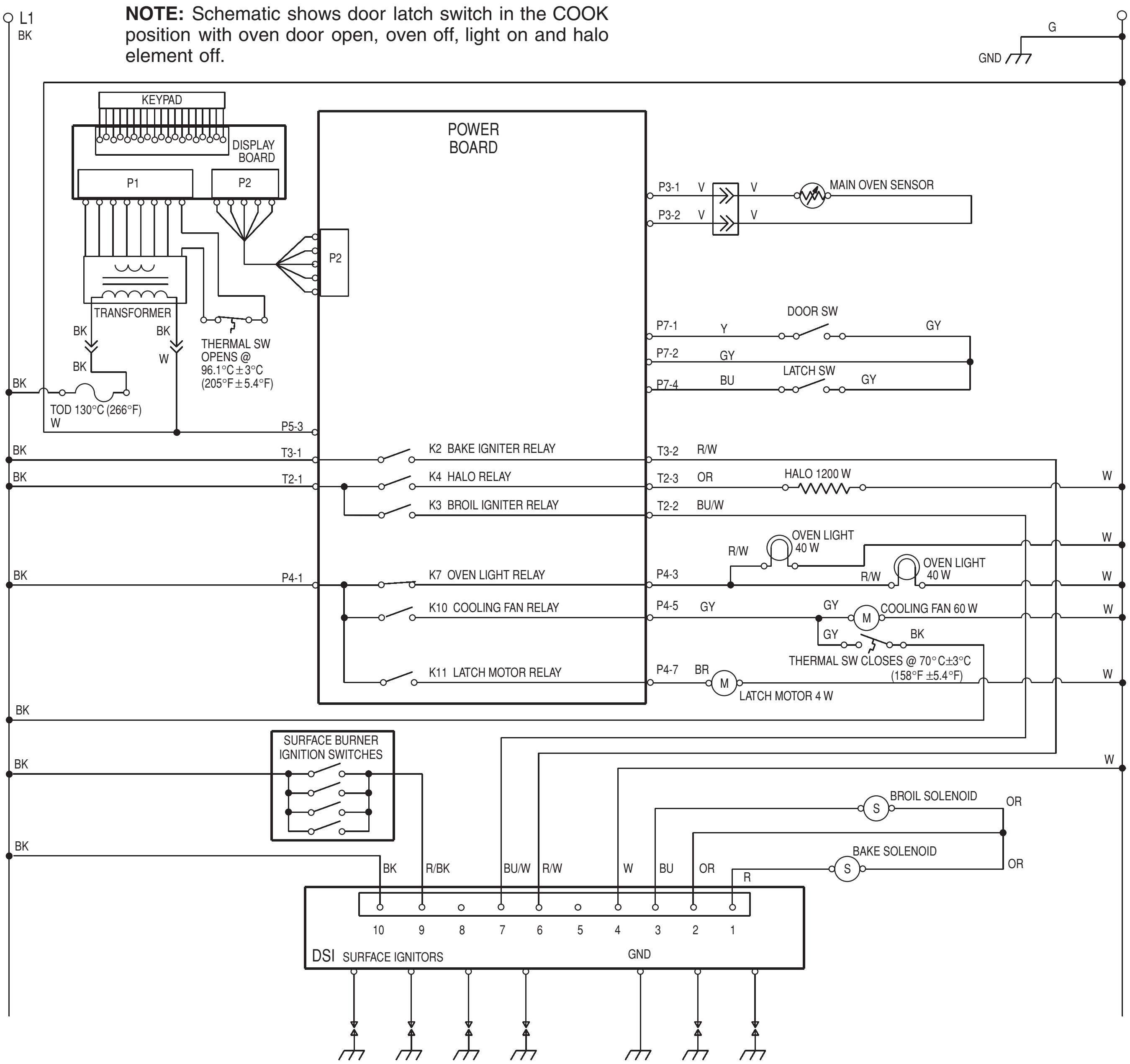
REAR VIEW
AMP HOUSING 770849-8
AMP PIN 770476-1



Power Board

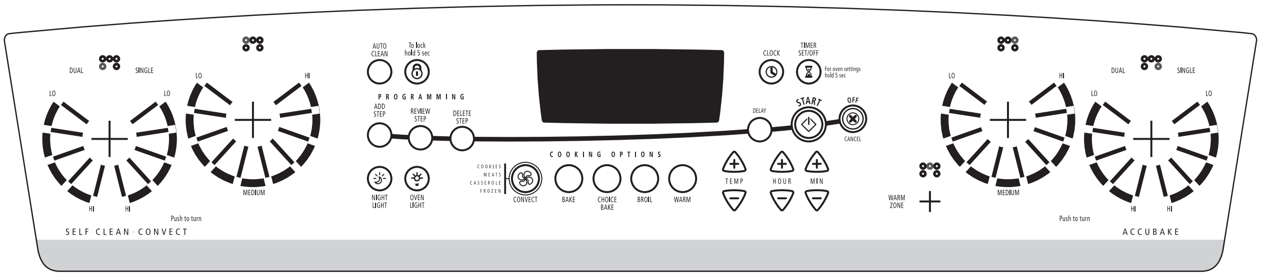


Wiring Diagram



Part No. 9757666

WHIRLPOOL (TULSA-BUILT) FREESTANDING MODEL GR448LXP

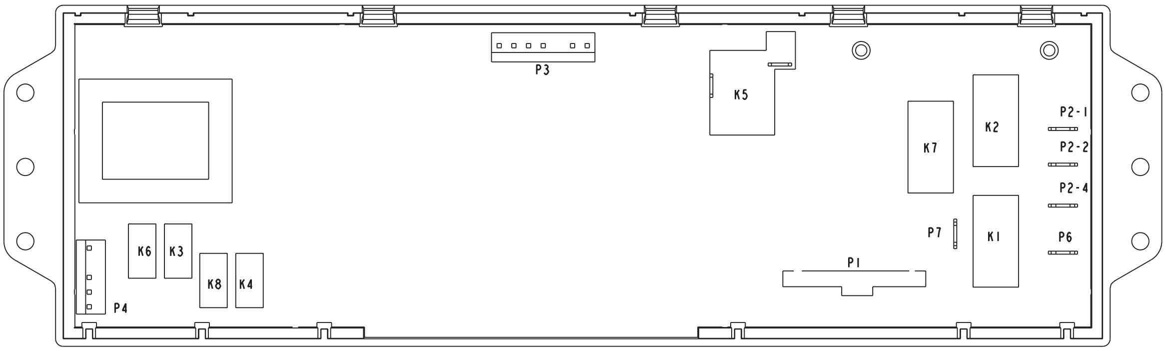


MODEL: GR448LXP

Keypad Layout

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BAKE	■	■																		
BROIL		■		■								X								
CLEAN		■			■				X											
TEMP UP	■				■				X											
TEMP DOWN	■					■								X						
COOK TIME	■							■					X							
STOP TIME	■		■							X										
TIMER SET/OFF						■	■				X			X						
CLOCK				■			■				X	X								
OVEN LIGHT				■				■				X	X							
HOUR UP					■			■	X				X							
MINUTE UP			■		■				X	X										
HOUR DOWN			■					■		X			X							
MINUTE DOWN			■				■			X	X									
NIGHT LIGHT						■		■					X	X						
WARM		■				■								X						
LOCK			■			■								X						
START																	■			■
OFF/CANCEL																		■		■

Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

PIN	FUNCTION
P2-1	BROIL
SPACE	SPACE
P2-2	L1
P2-3	NO CONNECTION
P2-4	BAKE

PIN	FUNCTION
P3-1	DOOR LATCH RECEIVE
P3-2	DOOR LATCH SEND
P3-3	DOOR POSITION SEND
P3-4	DOOR POSITION RECEIVE
P3-5	NO CONNECTION
P3-6	OVEN SENSOR SEND
P3-7	OVEN SENSOR RECEIVE

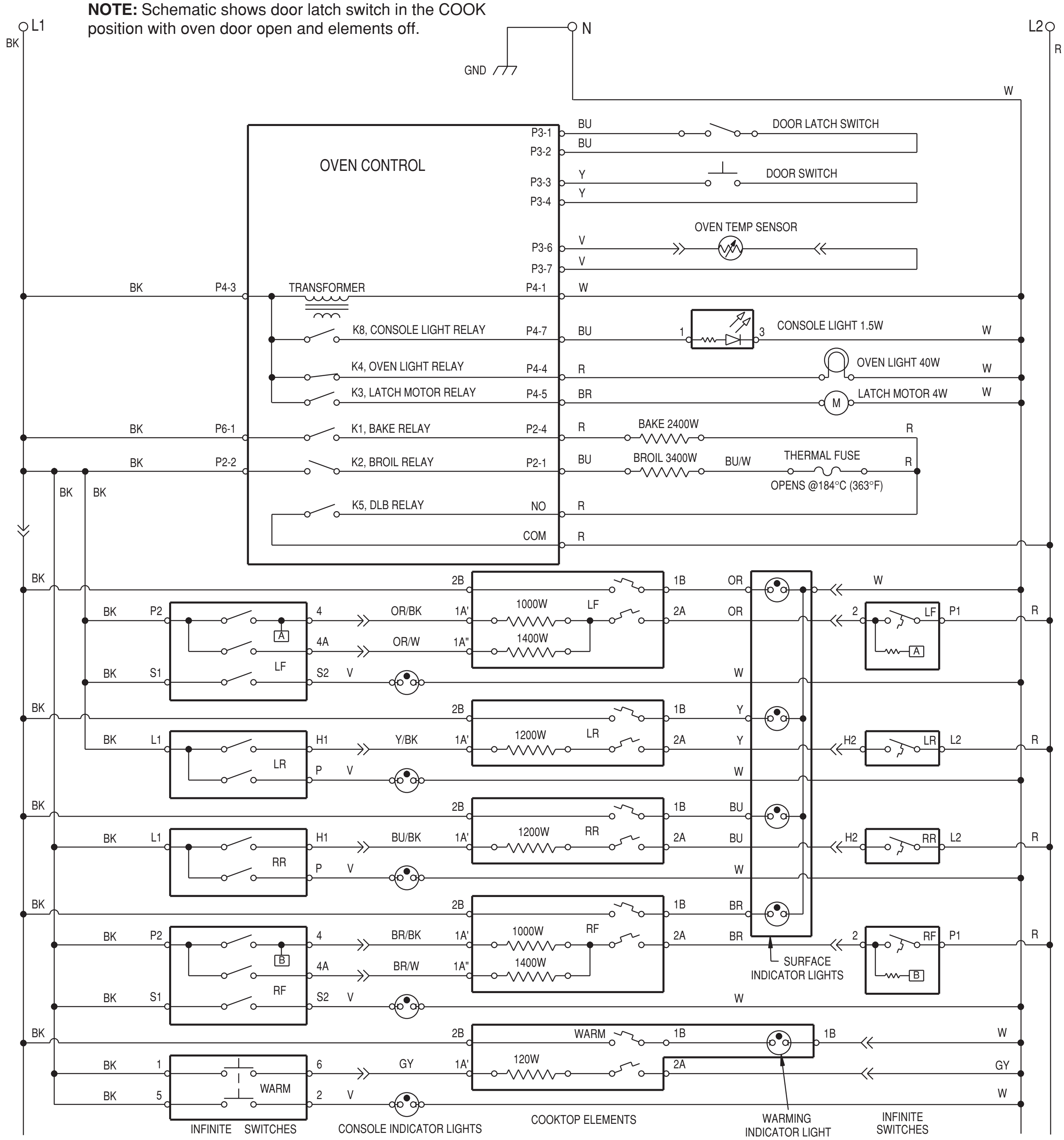
PIN	FUNCTION
P4-1	NEUTRAL
P4-2	NO PIN
P4-3	L1
P4-4	OVEN LIGHT
P4-5	DOOR LATCH SOLENOID
P4-6	CONVECTION
P4-7	TOP LIGHT

BAKE AND BROIL CONNECTOR P6

PIN	FUNCTION
P6	L1

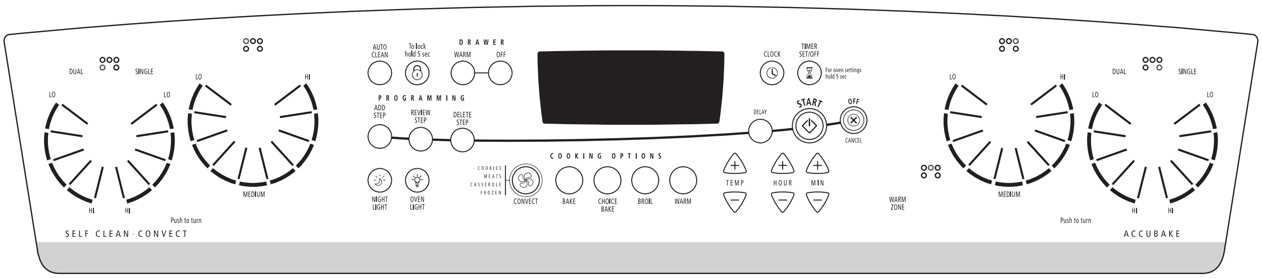
Wiring Diagram

NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.



Part No. 9759784

WHIRLPOOL (TULSA-BUILT) FREESTANDING MODEL GR478LXP

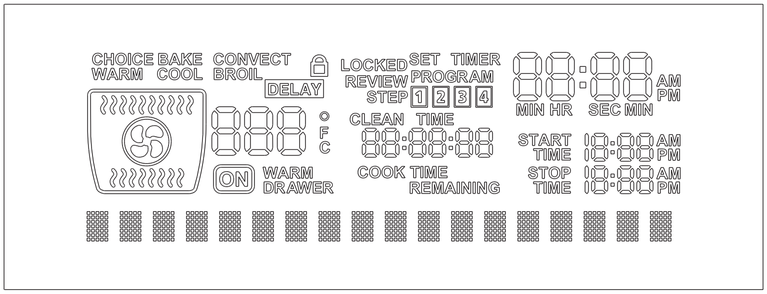


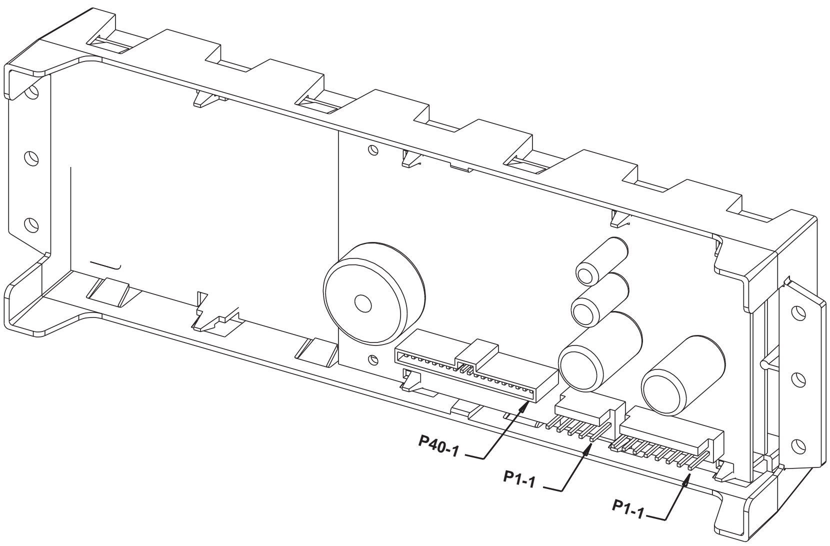
MODEL: GR478LXP

Keypad Layout

MODEL GR478LXP								
	10	11	12	13	14	15	16	18
2		AUTO CLEAN	ADD STEP	NIGHT LIGHT	LOCK	REVIEW STEP	OVEN LIGHT	
3		DRAWER WARM	DELETE STEP	DRAWER OFF	CONVECT	BAKE	CHOICE BAKE	
4		BROIL	WARM	TEMP +	TEMP -	HOUR +	HOUR -	
5		MIN +	MIN -	DELAY	CLOCK	TIMER SET/OFF	START	
6								
7								
8								
19								OFF CANCEL

Display Board & Connector Pinouts

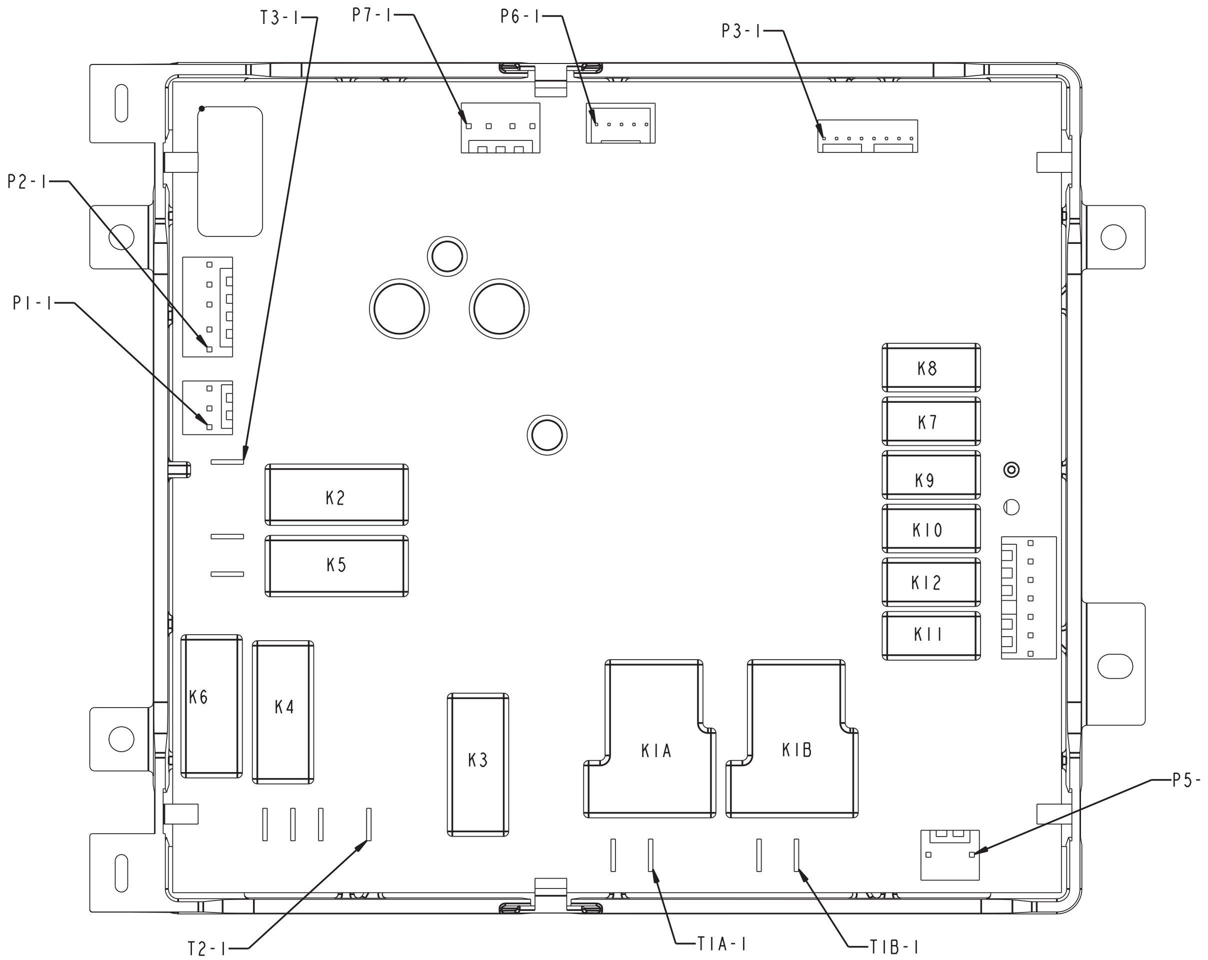




P1 PINOUTS	
P1-1	FILAMENT
P1-2	CENTER TAP
P1-3	FILAMENT
P1-4	12 VDC
P1-5	12 VDC
P1-6	OPEN
P1-7	42 VDC
P1-8	42 VDC

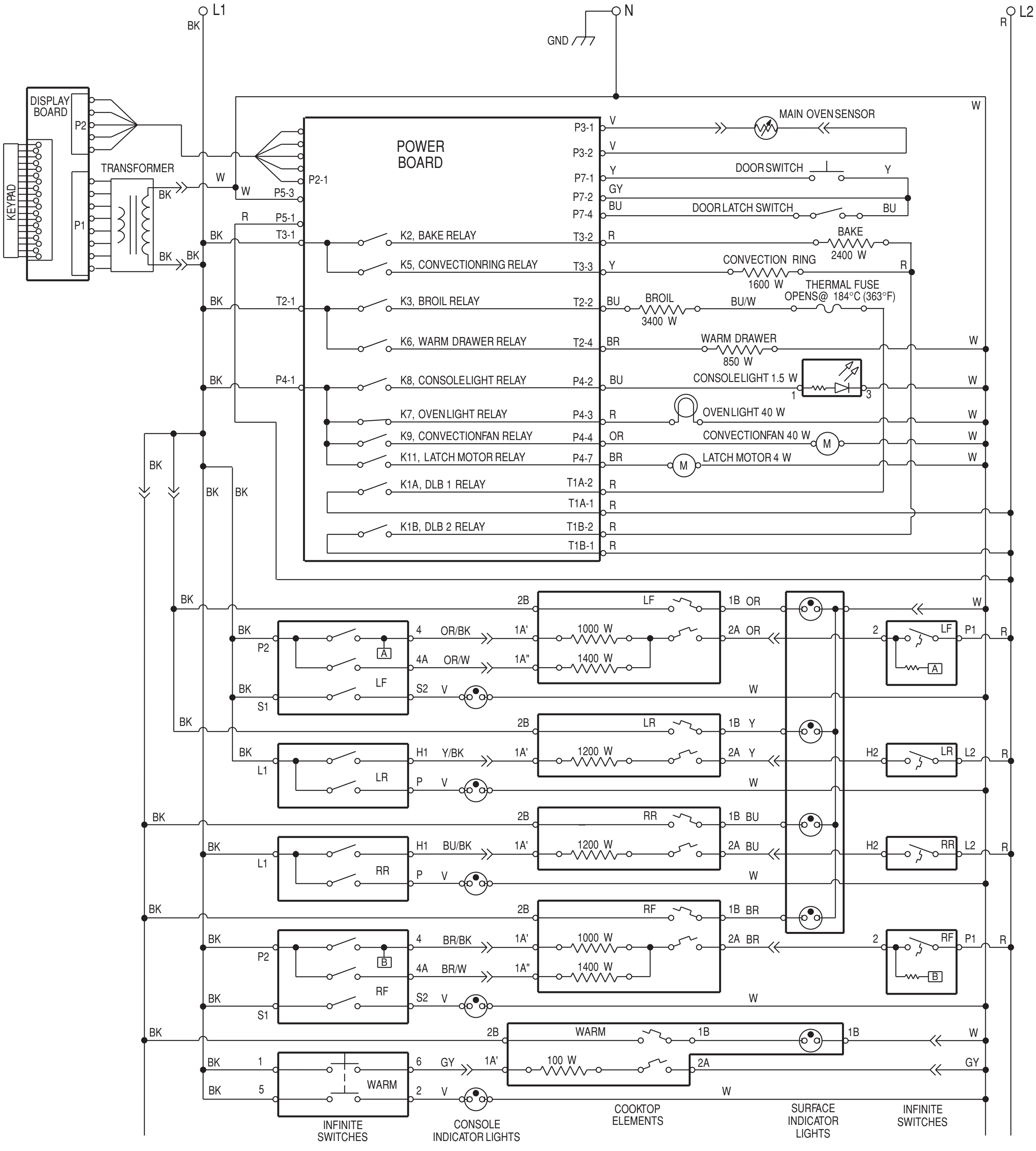
P2 PINOUTS	
P2-1	12 VDC
P2-2	12 VDC
P2-3	OPEN
P2-4	DATA
P2-5	DGND

Power Board



T3-1
P7-1
P6-1
P3-1
P2-1
P1-1
K8
K7
K9
K10
K12
K11
K2
K5
K6
K4
K3
K1A
K1B
P5-1
T2-1
T1A-1
T1B-1

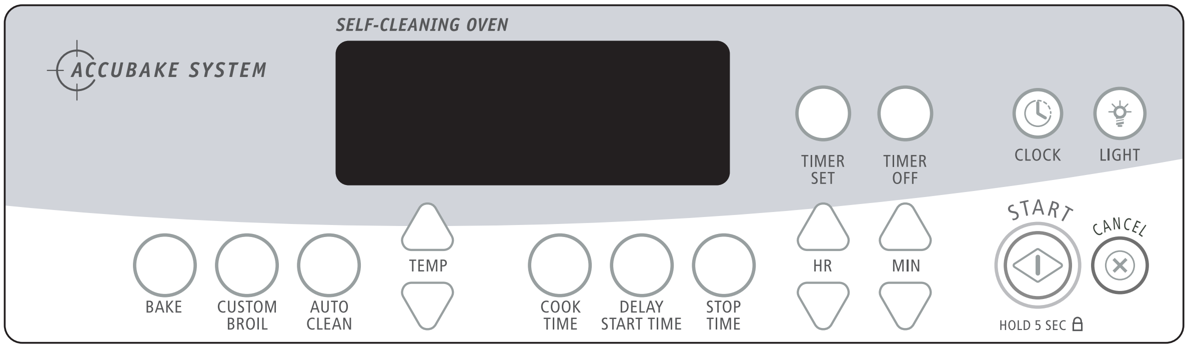
Wiring Diagram



NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.

Part No. 9759783

WHIRLPOOL (TULSA-BUILT) SLIDE-IN MODELS GS440LEM & GS445LEM

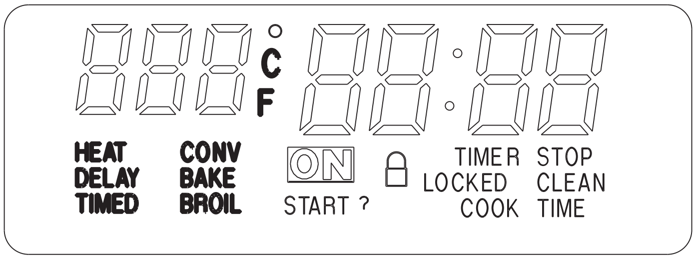


MODEL: GS440LEM & GS445LEM

Keypad Layout

	MODELS GS440LEM & GS445LEM					
PINS	6	5	4	3	2	1
7	CLOCK	TIMER SET	UNDO	START TIME		
8	AUTO CLEAN	TIMER OFF	1ST/NEXT STEP	BAKE		
9	MINUTE UP	HOUR UP	REVIEW STEPS	CUSTOM BROIL		
10	START	HOUR DOWN	CHOICE BAKE	WARM		
11		MINUTE DOWN	WARMING DRAWER	DRAWER OFF		
12	OVEN LIGHT	STOP TIME	TEMP UP	TEMP DOWN		
13					OFF CANCEL	
14						

Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

PIN	FUNCTION
P2-1	BROIL
SPACE	SPACE
P2-2	L1
P2-3	NO CONNECTION
P2-4	BAKE

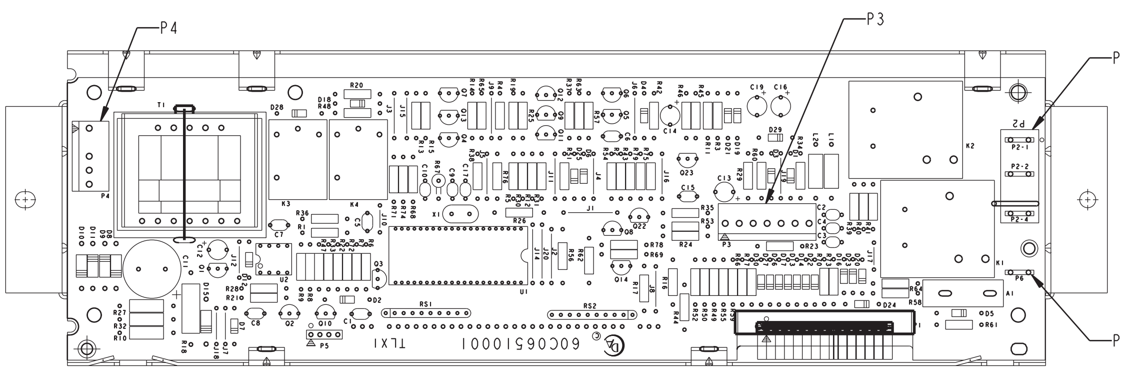
PIN	FUNCTION
P3-1	DOOR LATCH RECEIVE
P3-2	DOOR LATCH SEND
P3-3	DOOR POSITION SEND
P3-4	DOOR POSITION RECEIVE
P3-5	EARTH GROUND
P3-6	OVEN SENSOR SEND
P3-7	OVEN SENSOR RECEIVE

PIN	FUNCTION
P4-1	NEUTRAL
P4-2	NO PIN
P4-3	L1
P4-4	OVEN LIGHT
P4-5	DOOR LATCH SOLENOID

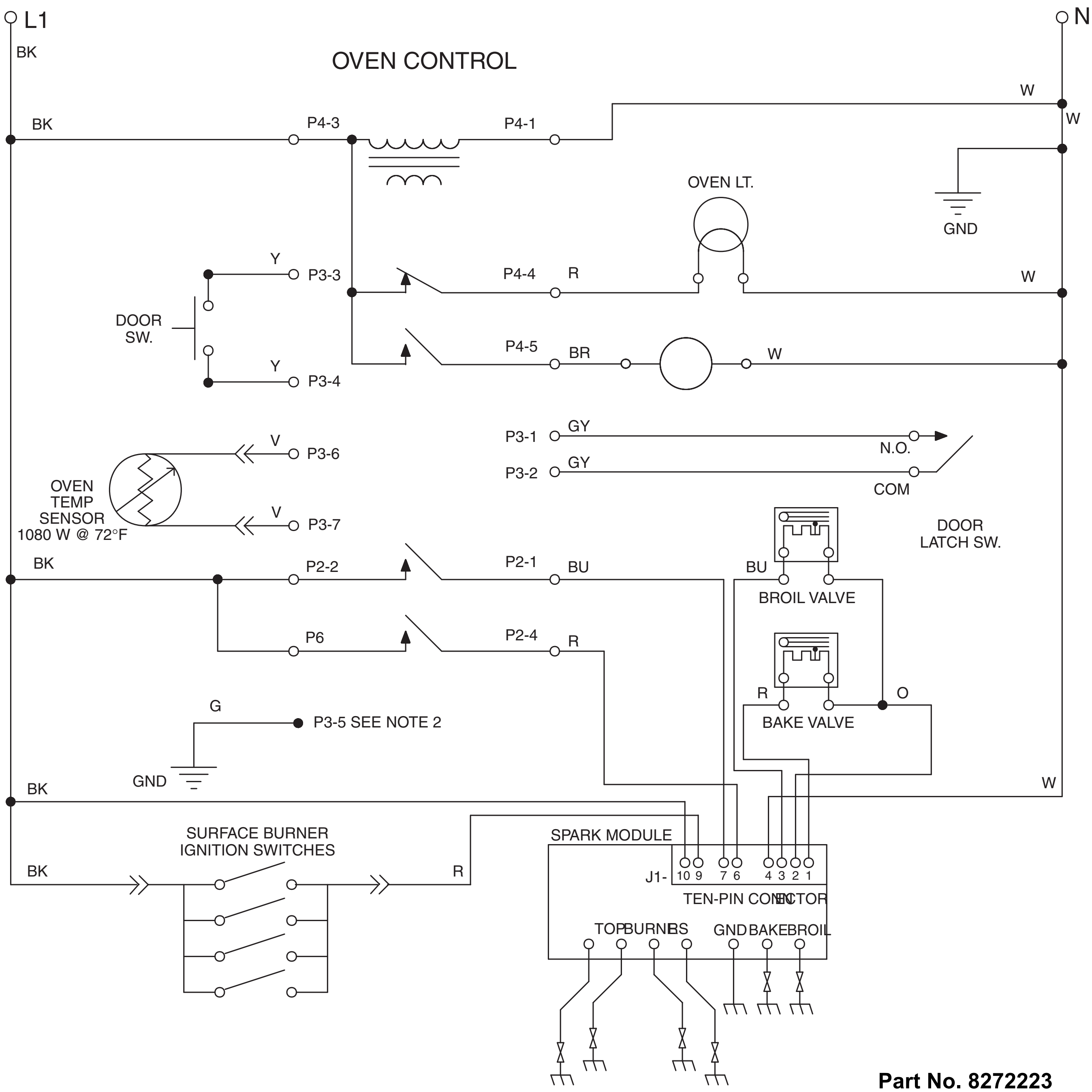
BAKE AND BROIL CONNECTOR P6

PIN	FUNCTION
P6	L1

Power Board

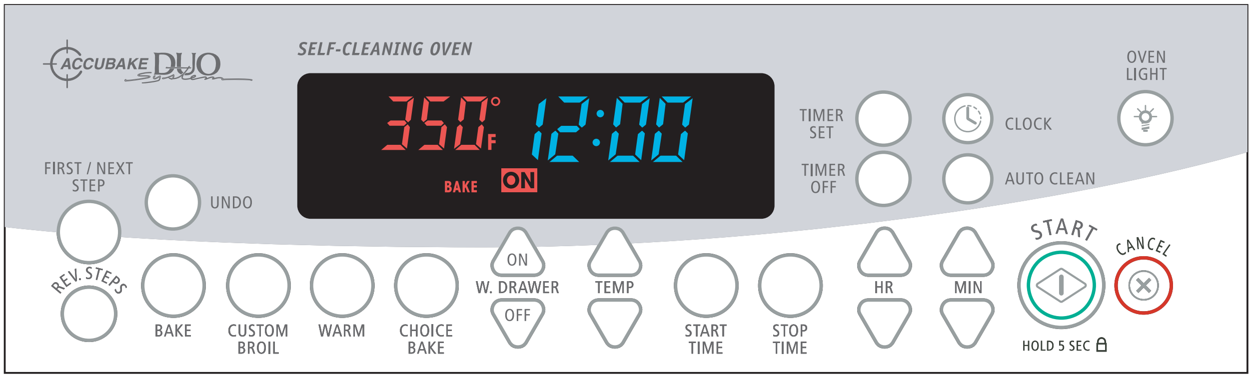


Wiring Diagram



Part No. 8272223

WHIRLPOOL (TULSA-BUILT) SLIDE-IN
MODELS GS470LEM & GS475LEM

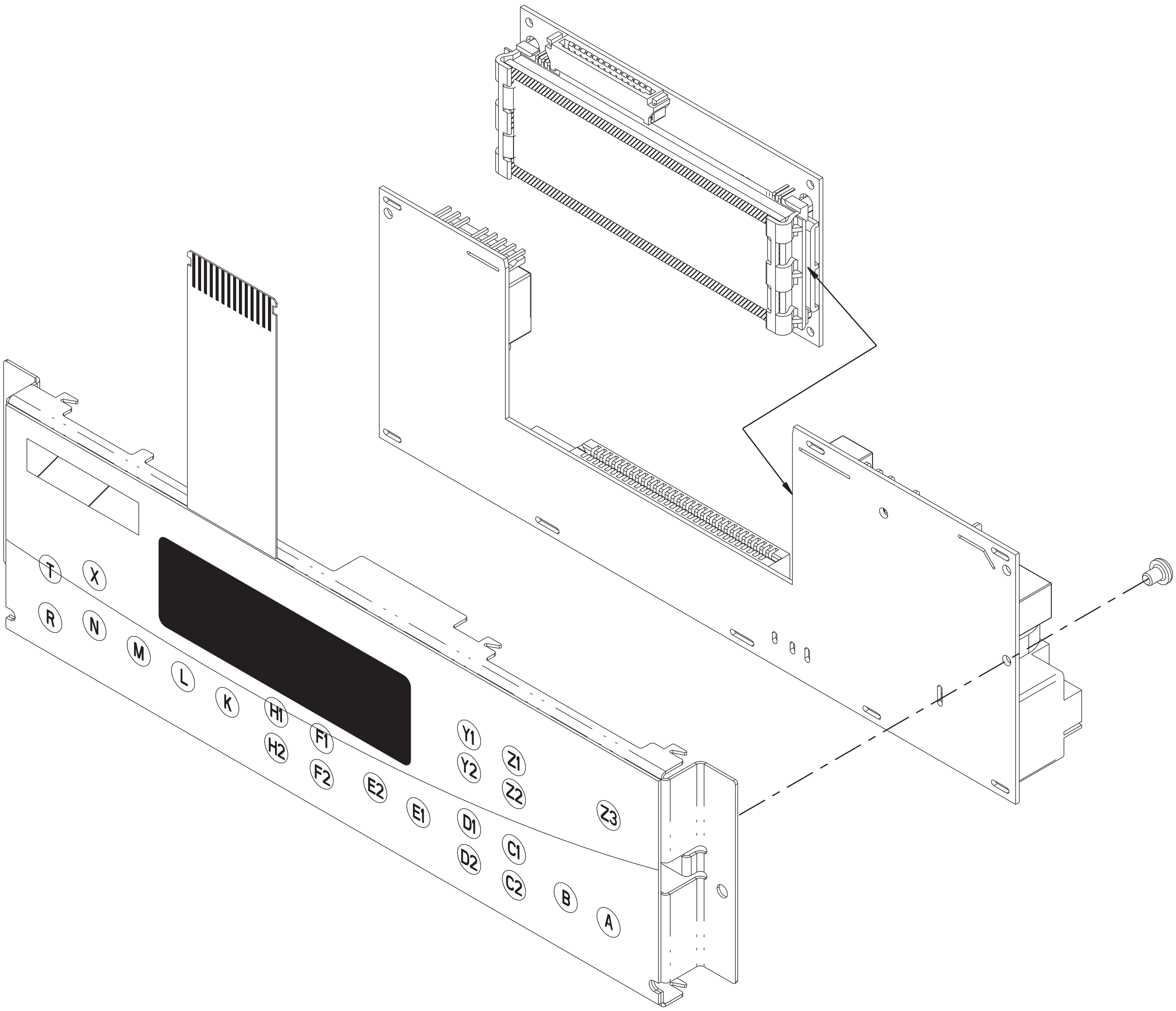


MODELS: GS470LEM & GS475LEM

Keypad Layout

	MODELS GS470LEM & GS475LEM					
PINS	6	5	4	3	2	1
7	CLOCK	TIMER SET	UNDO	START TIME		
8	AUTO CLEAN	TIMER OFF	1ST/NEXT STEP	BAKE		
9	MINUTE UP	HOUR UP	REVIEW STEPS	CUSTOM BROIL		
10	START	HOUR DOWN	CHOICE BAKE	WARM		
11		MINUTE DOWN	WARMING DRAWER	DRAWER OFF		
12	OVEN LIGHT	STOP TIME	TEMP UP	TEMP DOWN		
13					OFF CANCEL	
14						

Display Board & Connector Pinouts

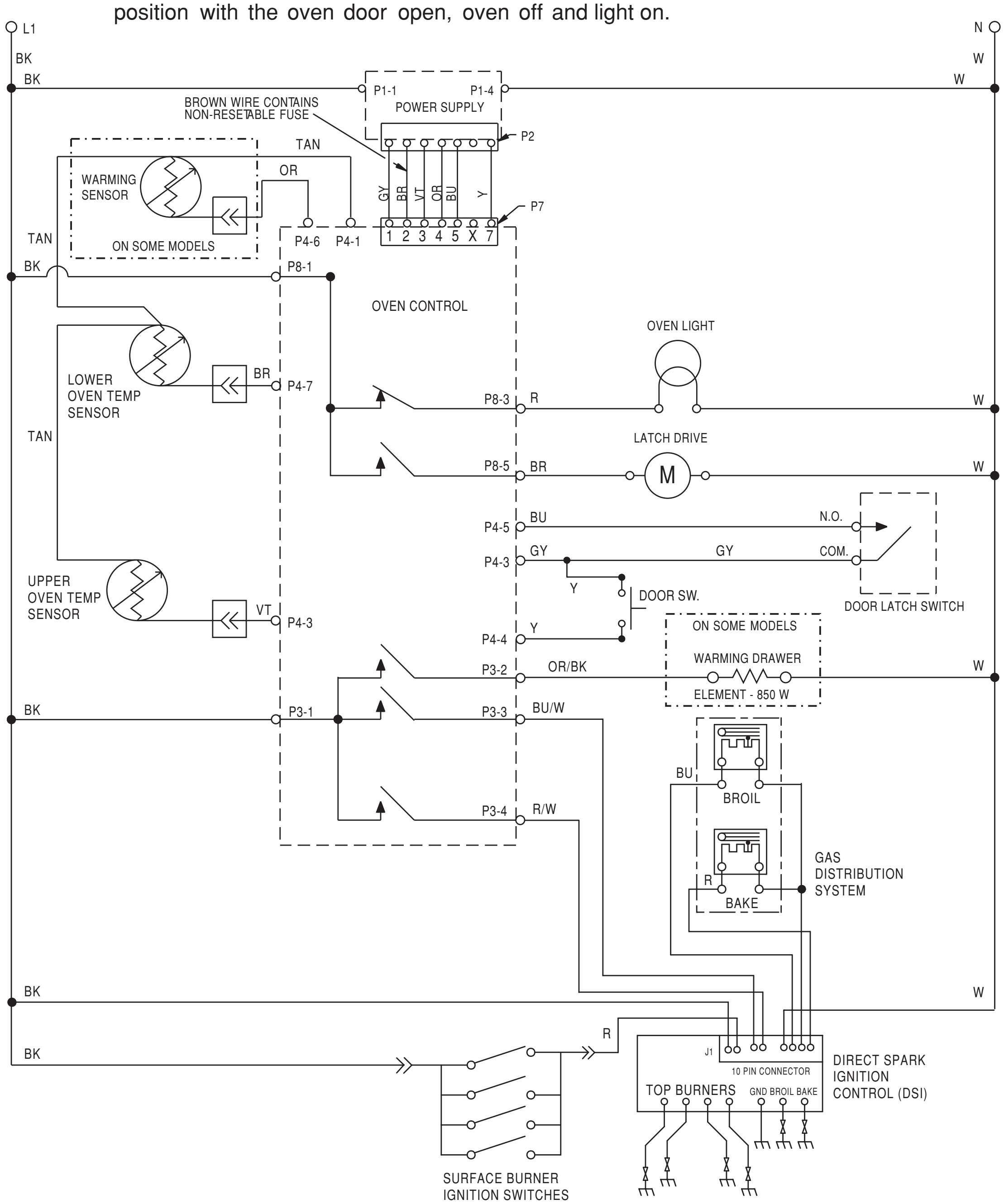


Appliance Manager Connectors

Relay	Test between Pins	
Bake relay output	P3-4	P3-1
Broil relay output	P3-3	P3-1
Warm drawer/compressor relay output	P3-2	P3-1
Convection relay output	P1-2	P1-1
Convection fan relay output	P8-4	P8-1
Cook top lockout / simmer output	P8-9	P8-1
Top light output	P8-2	P8-1
Cavity light output	P8-3	P8-1
Latch switch input	P4-5	P4-1
Door switch input	P4-4	P4-1
Switch strobe output	P4-3	P4-1
Lower sensor	P4-8	P4-1
Upper sensor	P4-7	P4-1
Warming drawer sensor	P4-6	P4-1

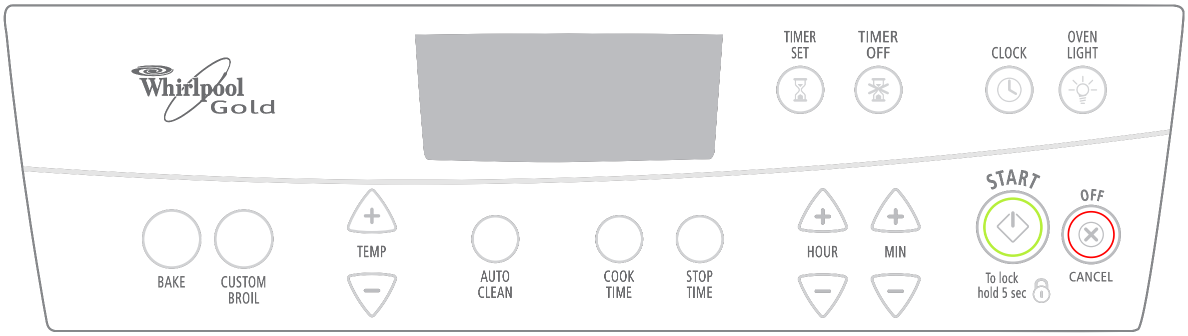
Wiring Diagram

NOTE: Schematic shows door latch switch in the cook position with the oven door open, oven off and light on.



Part No. 8522648

WHIRLPOOL (OXFORD-BUILT) SLIDE-IN
MODELS GW395LEP & GY396LXP

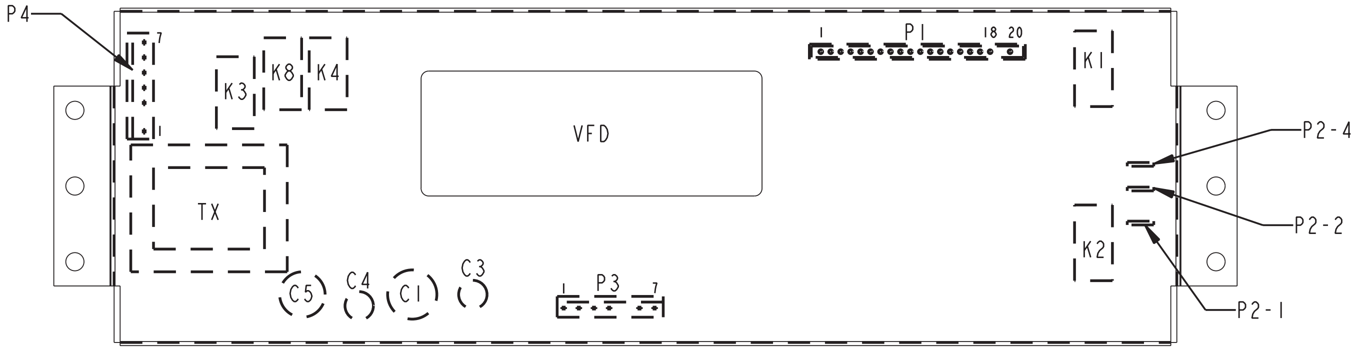


MODELS: GW395LEP & GY396LXP

Keypad Layout

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BAKE	■	■																		
BROIL		■		■																
CLEAN		■			■															
TEMP UP	■				■															
TEMP DOWN	■													■						
COOK TIME	■												■							
STOP TIME	■									■										
TIMER SET						■	■													
TIMER OFF							■	■												
CLOCK											■	■								
OVEN LIGHT												■	■							
HOUR UP								■	■											
MINUTE UP									■	■										
HOUR DOWN								■		■										
MINUTE DOWN										■	■									
START																	■			
OFF/CANCEL																		■		

Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

PIN	P2 FUNCTION
P2-1	BROIL RELAY OUTPUT
SPACE	
P2-2	AC LINE IN (120 VAC, 60 HZ) (L1)
P2-3	NO CONNECTION
P2-4	BAKE RELAY OUTPUT

PIN	P3 FUNCTION
P3-1	DOOR LATCH RECEIVE
P3-2	DOOR LATCH SEND
P3-3	DOOR SWITCH SEND
P3-4	DOOR SWITCH RECEIVE
P3-5	NO CONNECTION
P3-6	OVEN SENSOR SEND
P3-7	OVEN SENSOR RECEIVE

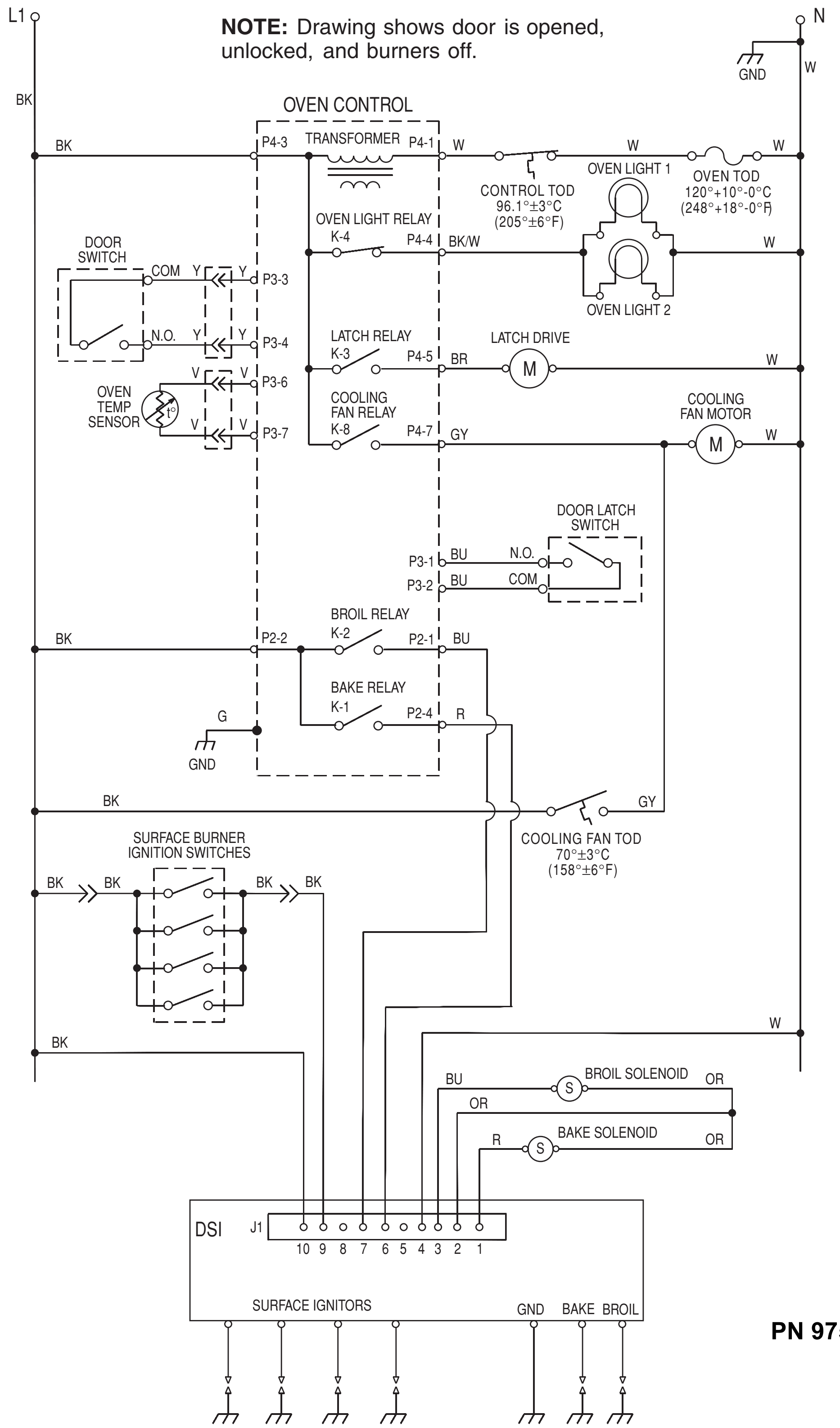
PIN	P4 FUNCTION
P4-1	AC NEUTRAL (N)
P4-2	NO CONNECTION
P4-3	AC LINE (120 VAC, 60 HZ) (L1)
P4-4	OVEN LIGHT RELAY OUT (120 VAC)
P4-5	DOOR MOTORIZED LATCH RELAY OUT (120VAC)
P4-6	CONVECT FAN (ELEC ONLY) RELAY OUT (120VAC)
P4-7	COOLING FAN (ELEC & GAS) RELAYOUT (120VAC)

BAKE CONNECTOR P6

PIN	P6 FUNCTION
P6	L1

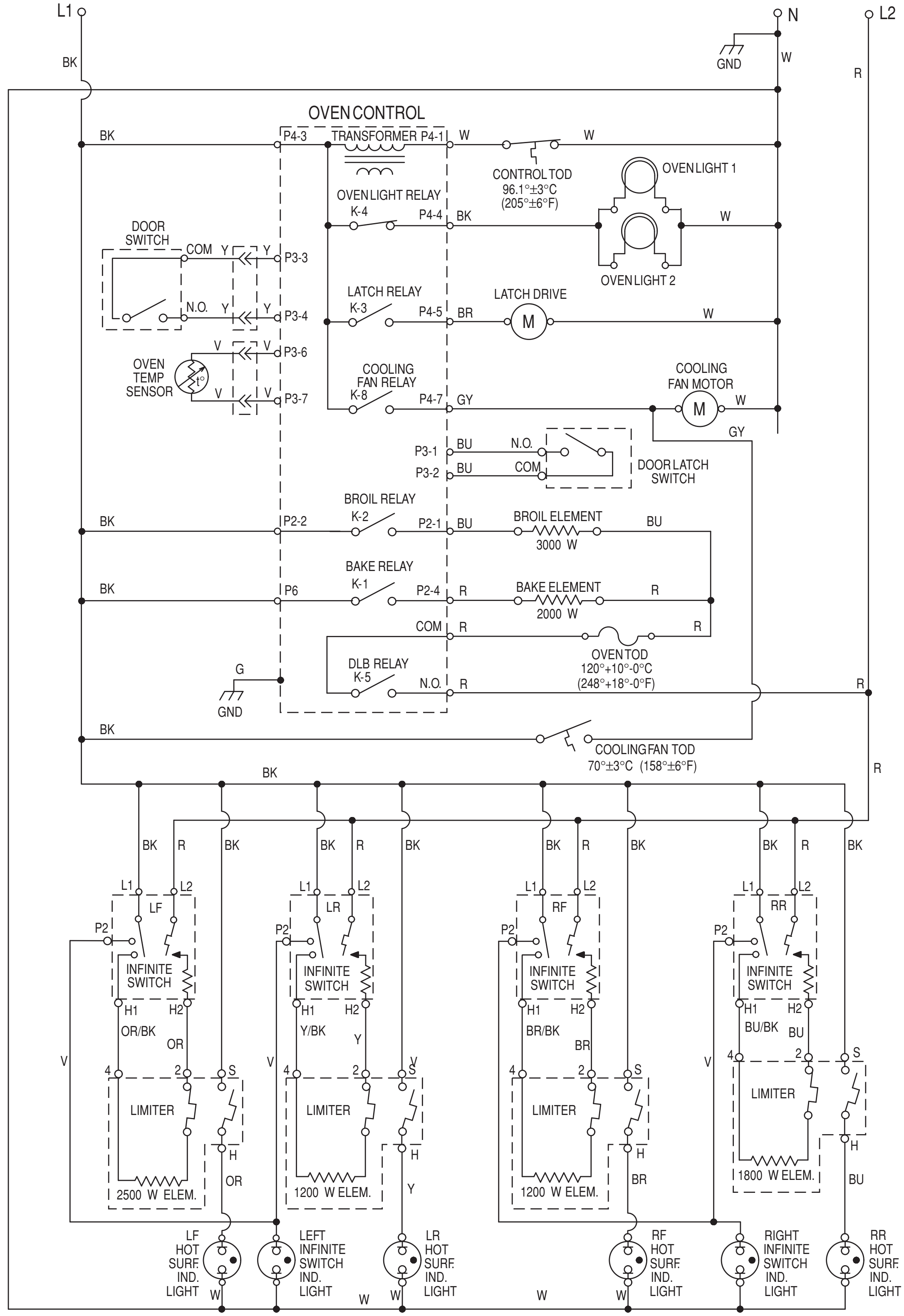
P6 FUNCTION: LINE FOR BAKE (ELECTRIC ONLY)
P7 FUNCTION: CONVECTION
P1 FUNCTION: KEYBOARD INTERFACE

Wiring Diagram
Model GW395LEP



PN 9757668

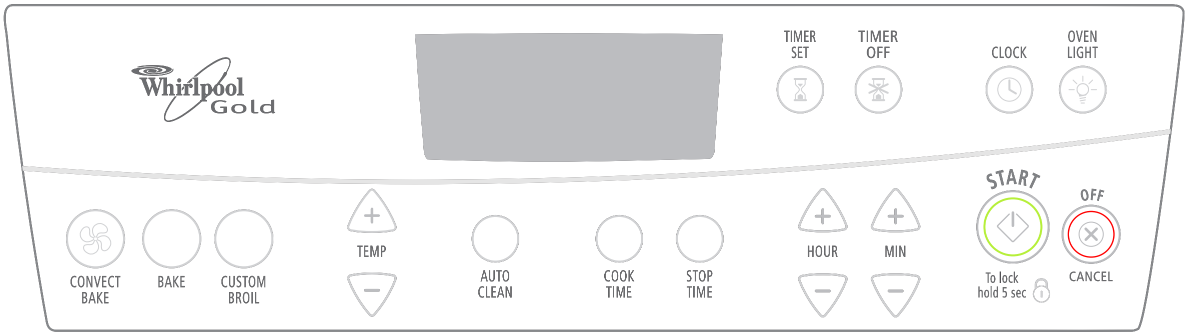
Wiring Diagram
Model GY396LXP



NOTE: Schematic shows door is opened, unlocked, and elements off.

Part No. 9759904

WHIRLPOOL (OXFORD-BUILT) SLIDE-IN MODEL GY398LXP

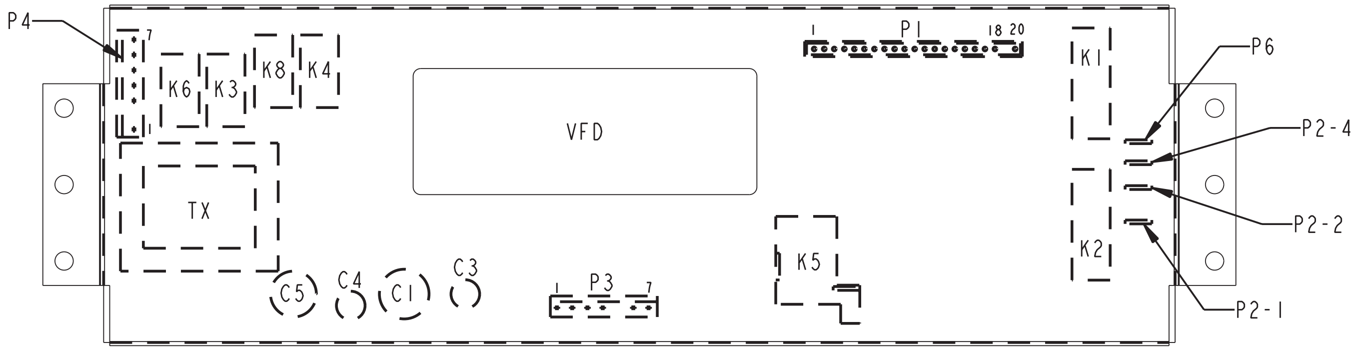


MODEL: GY398LXP

Keypad Layout

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONVEC BAKE					■	■														
BAKE	■	■																		
BROIL		■		■																
CLEAN		■			■															
TEMP UP	■				■															
TEMP DOWN	■													■						
COOK TIME	■												■							
STOP TIME	■									■										
TIMER SET						■	■													
TIMER OFF							■	■												
CLOCK											■	■								
OVEN LIGHT												■	■							
HOUR UP								■	■											
MINUTE UP									■	■										
HOUR DOWN								■		■										
MINUTE DOWN										■	■									
START																	■			
OFF/CANCEL																		■		

Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

PIN	P2 FUNCTION
P2-1	BROIL RELAY OUTPUT
SPACE	
P2-2	AC LINE IN (120 VAC, 60 HZ) (L1)
P2-3	NO CONNECTION
P2-4	BAKE RELAY OUTPUT

PIN	P3 FUNCTION
P3-1	DOOR LATCH RECEIVE
P3-2	DOOR LATCH SEND
P3-3	DOOR SWITCH SEND
P3-4	DOOR SWITCH RECEIVE
P3-5	NO CONNECTION
P3-6	OVEN SENSOR SEND
P3-7	OVEN SENSOR RECEIVE

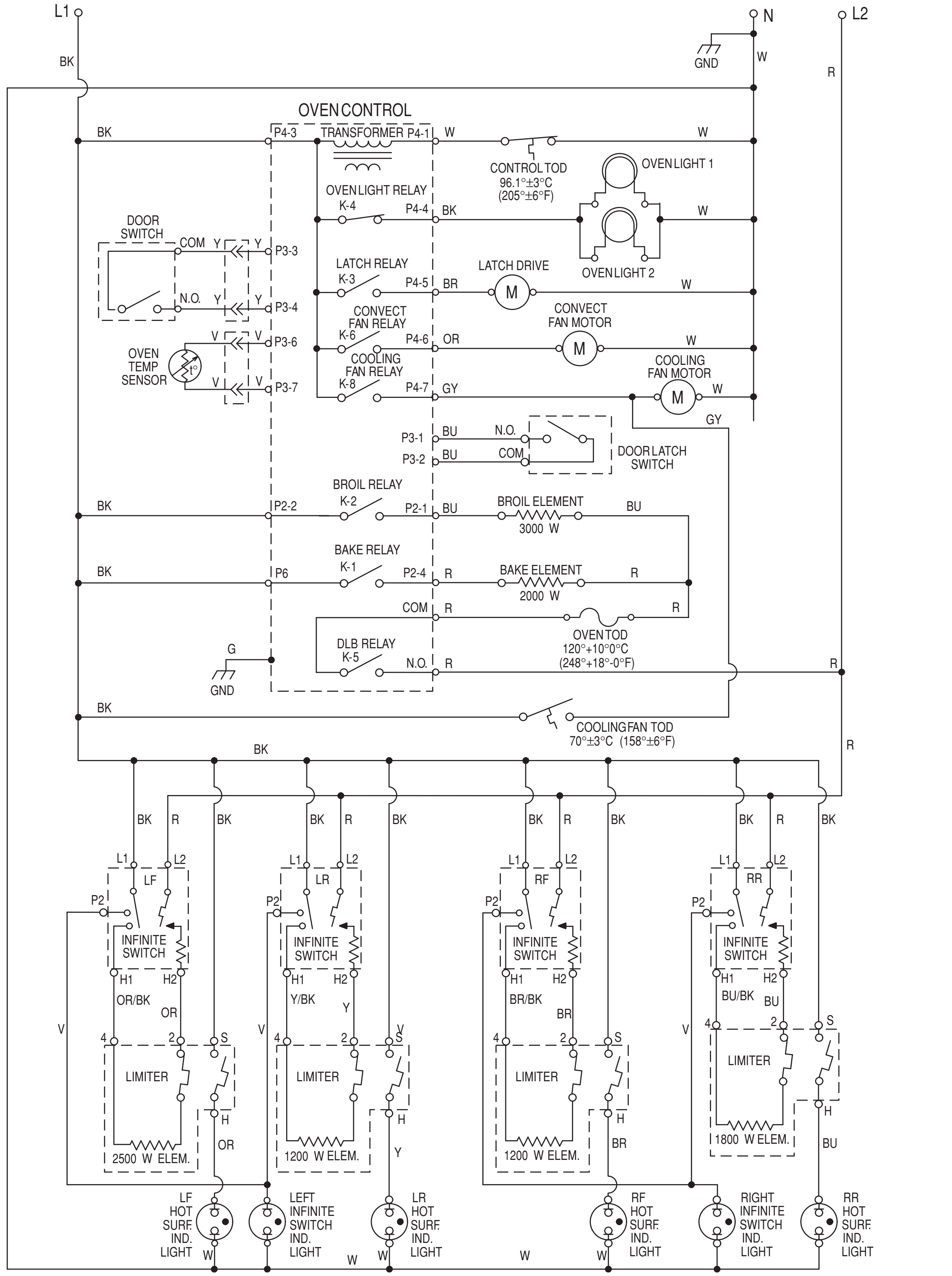
PIN	P4 FUNCTION
P4-1	AC NEUTRAL (N)
P4-2	NO CONNECTION
P4-3	AC LINE (120 VAC, 60 HZ) (L1)
P4-4	OVEN LIGHT RELAY OUT (120 VAC)
P4-5	DOOR MOTORIZED LATCH RELAY OUT (120VAC)
P4-6	CONVECT FAN (ELEC ONLY) RELAY OUT (120VAC)
P4-7	COOLING FAN (ELEC & GAS) RELAYOUT (120VAC)

BAKE CONNECTOR P6

PIN	P6 FUNCTION
P6	L1

P6 FUNCTION: LINE FOR BAKE (ELECTRIC ONLY)
P7 FUNCTION: CONVECTION
P1 FUNCTION: KEYBOARD INTERFACE

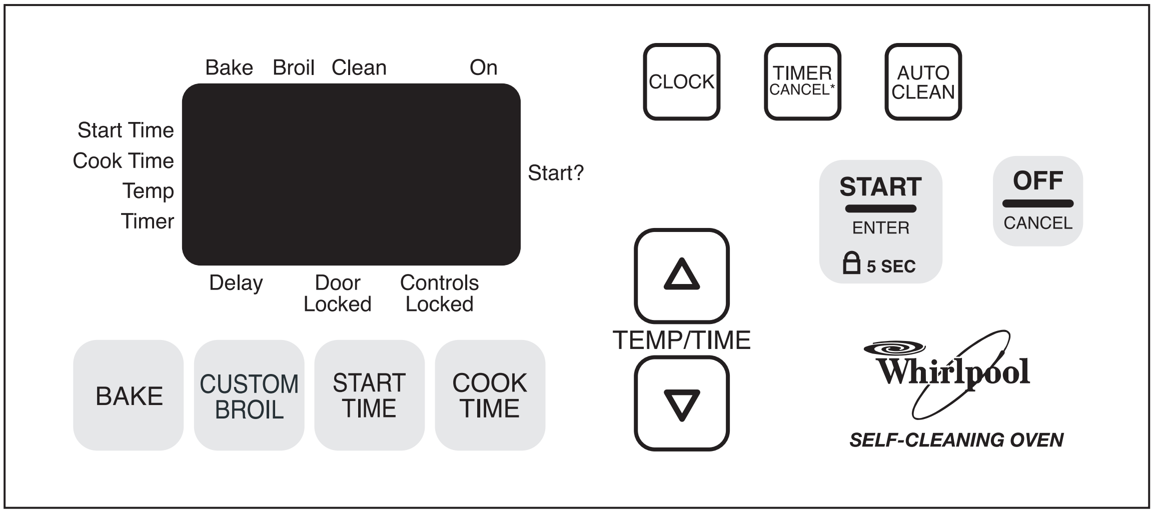
Wiring Diagram



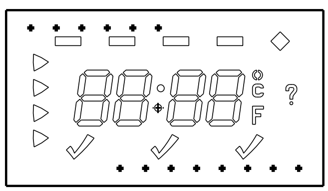
NOTE: Schematic shows door is opened, unlocked, and elements off.

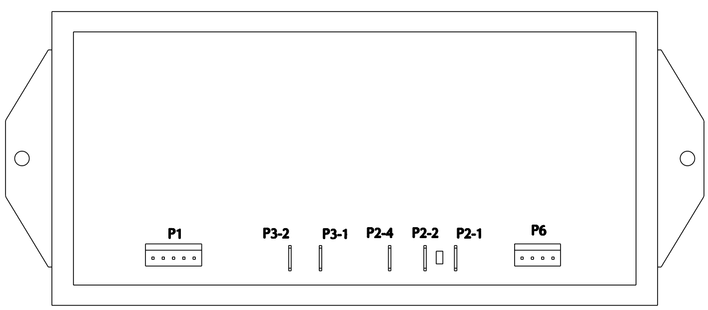
PN 9759903

WHIRLPOOL (TULSA-BUILT) FREESTANDING MODELS RF196LXM, RF315PXP, RF364PXP, RF365PXM, RF366LXP, RF368LXP, RF369LXP, RF378LXP, RF380LXP, SF196LEP, SF368LEP, SF369LEP, SF378LEP & SF380LEP

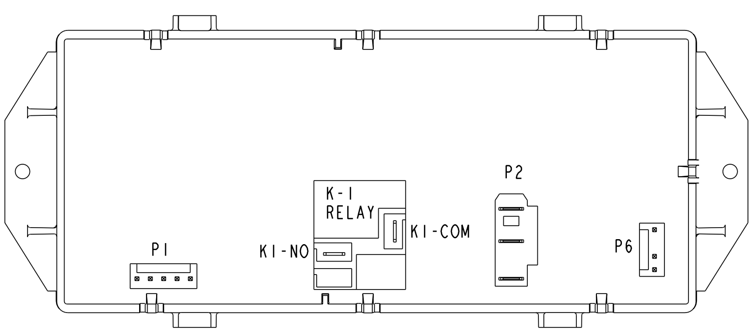


Display And Display Board



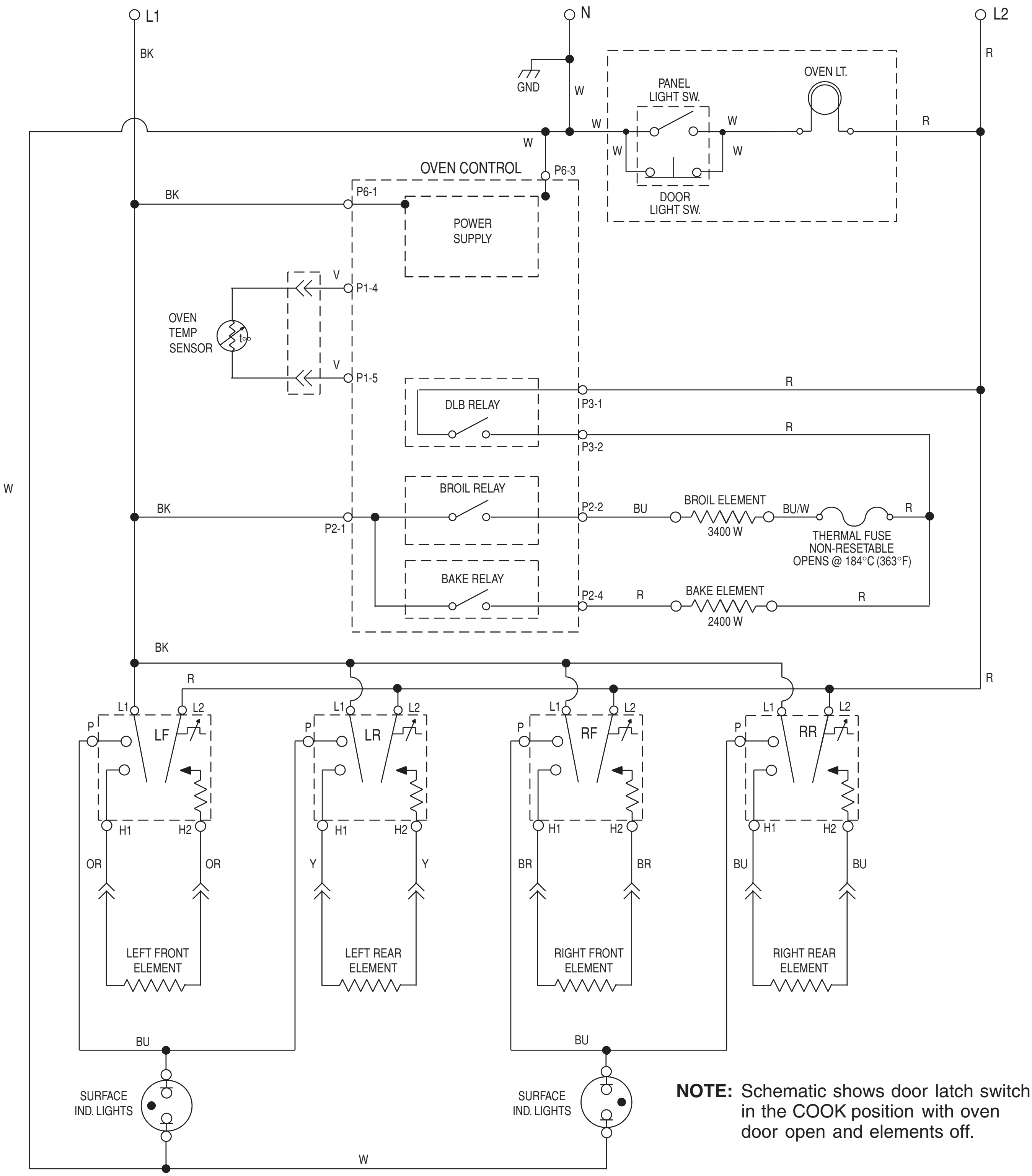


DETAIL OF INVENSYS MODEL



DETAIL OF DAC (EMERSON) MODEL

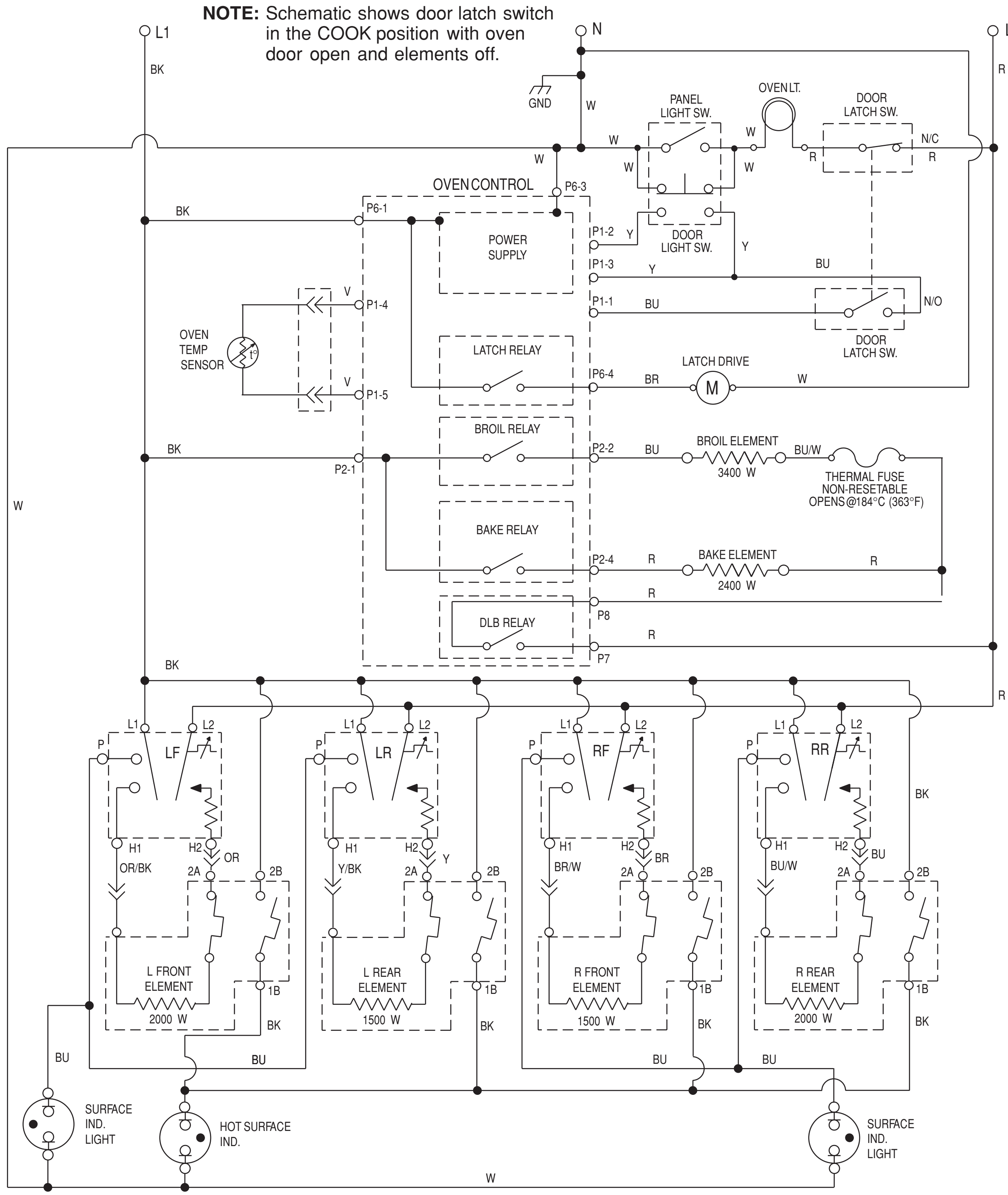
Wiring Diagram
Model RF315PXP



NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.

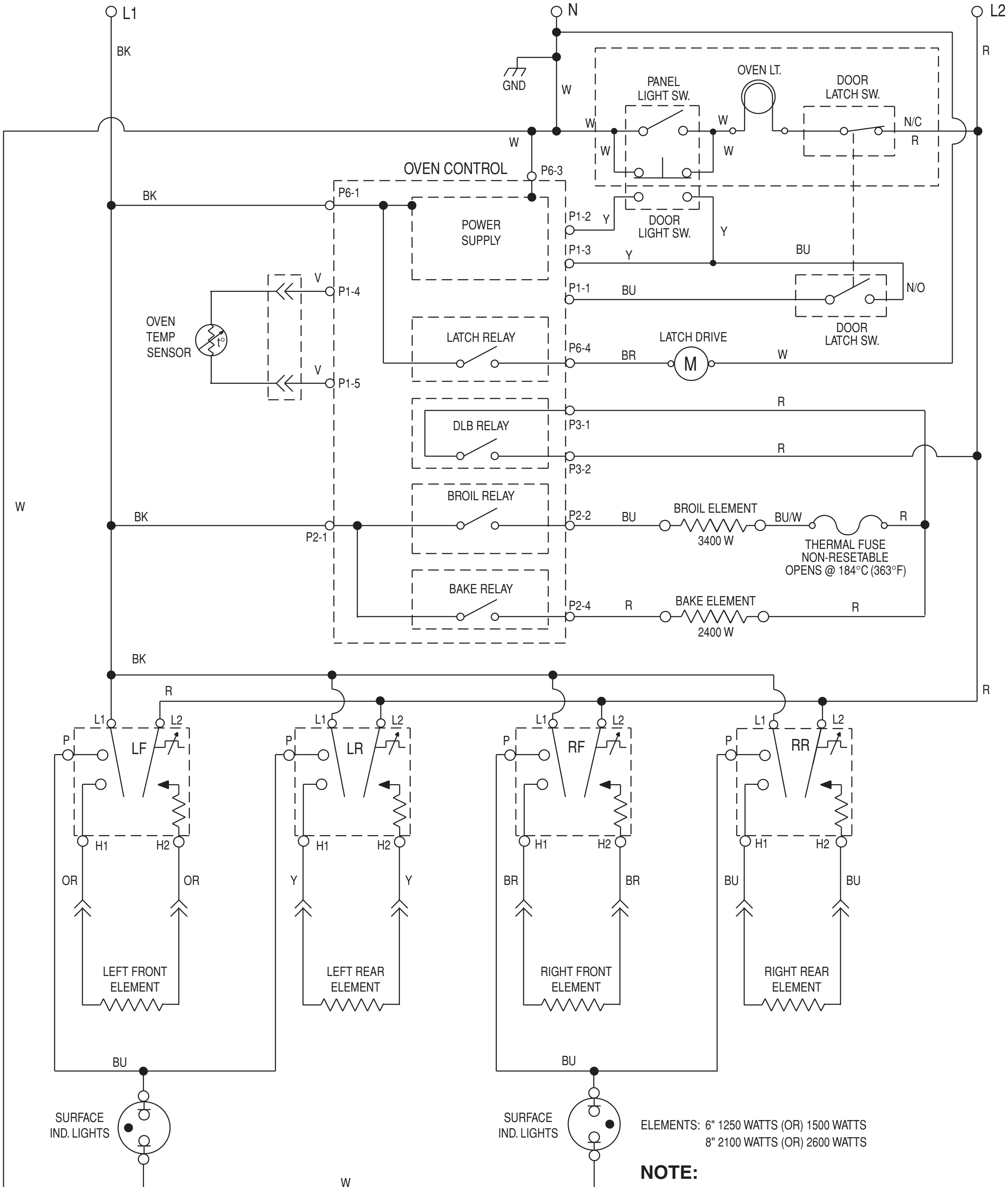
PN 4454078

Wiring Diagram
Models RF196LXM & RF364PXP



PN 9757347

Wiring Diagram
Models RF365PXM & RF369LXP



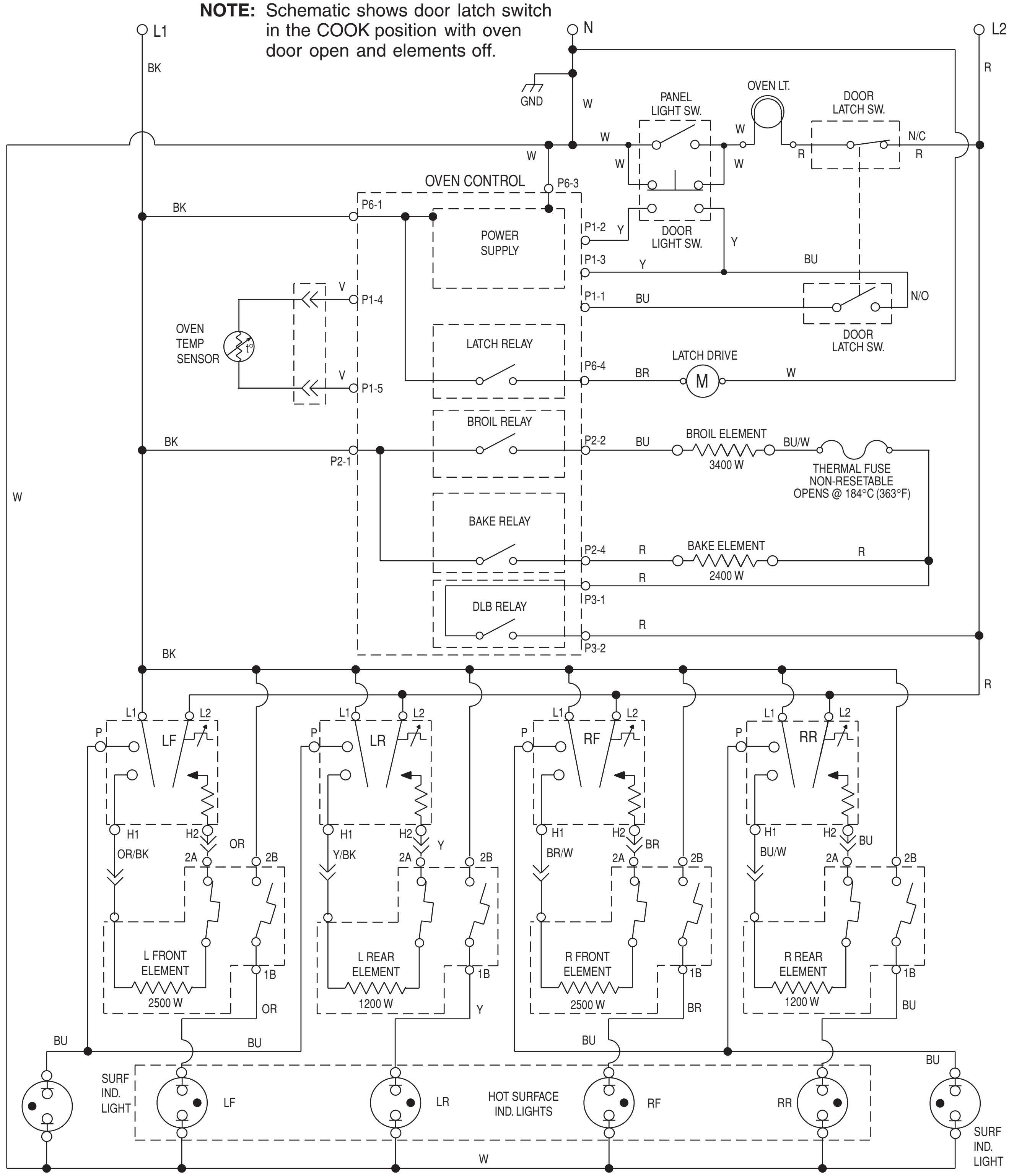
ELEMENTS: 6" 1250 WATTS (OR) 1500 WATTS
8" 2100 WATTS (OR) 2600 WATTS

NOTE:
Schematic shows door latch switch in the COOK position with oven door open and elements off.

PN 4454079

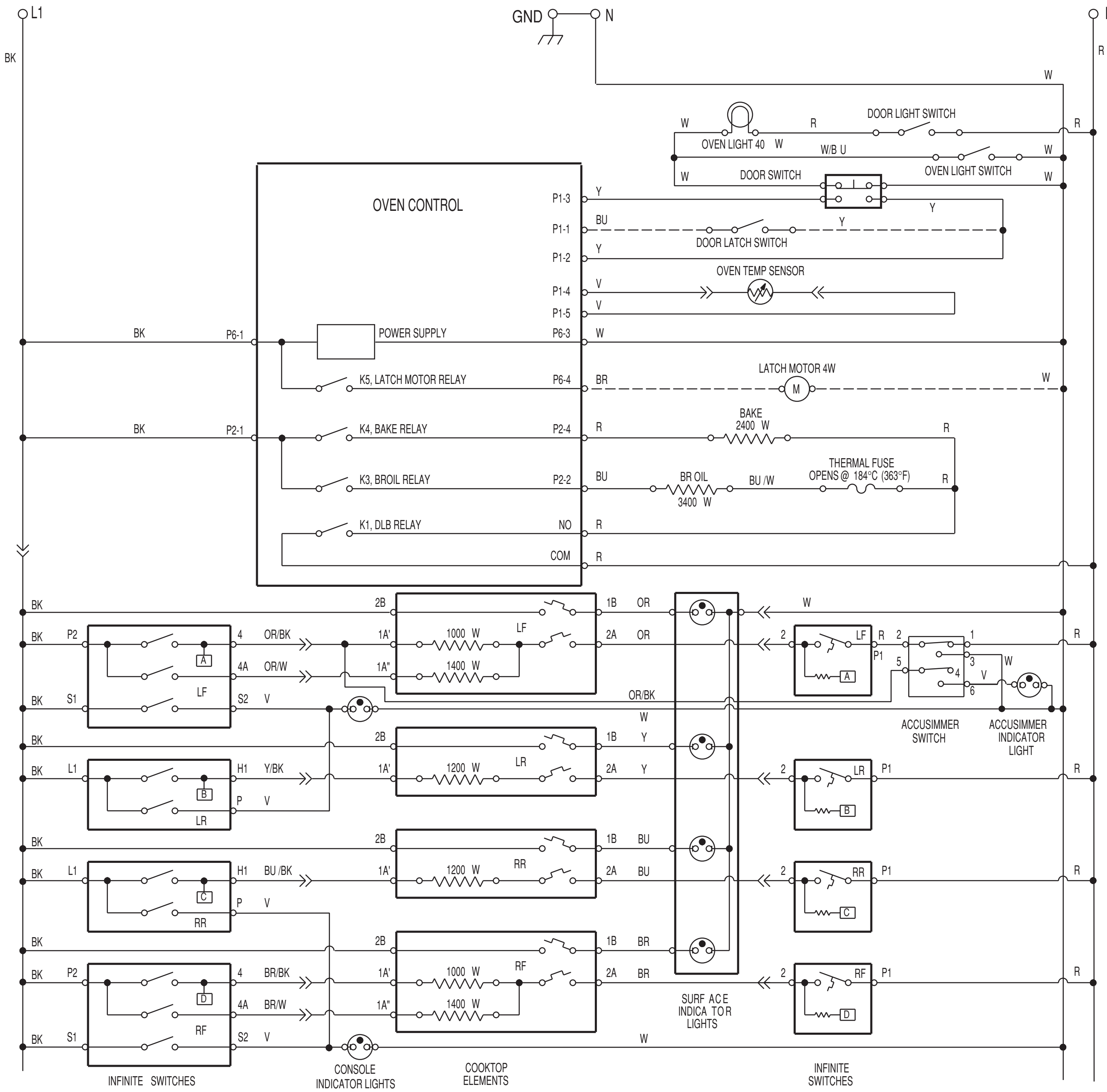
Wiring Diagram
Models RF366LXP & RF368LXP

NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.



PN 9756207

Wiring Diagram
Models RF378LXP & RF380LXP

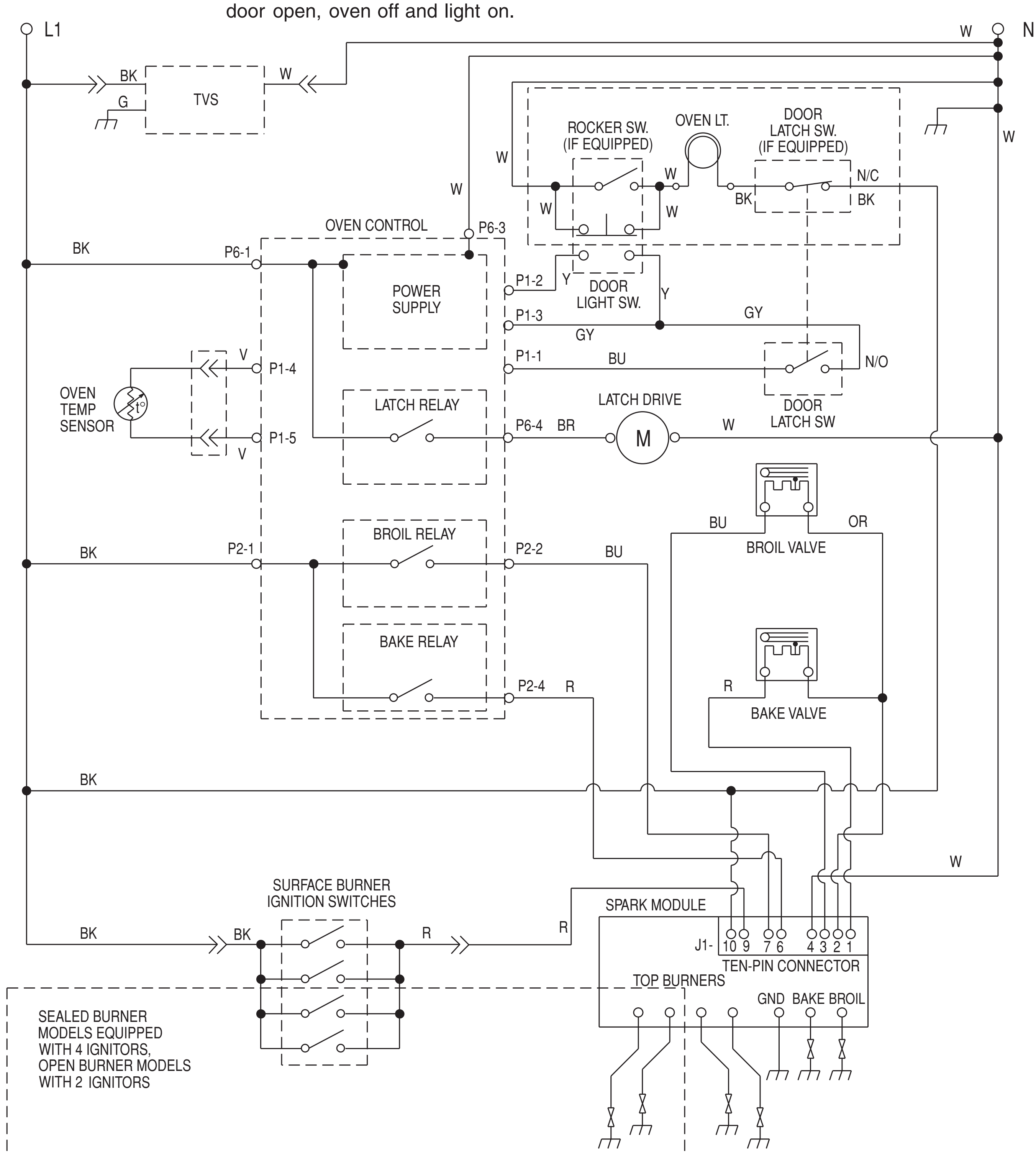


NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.

PN 9759917

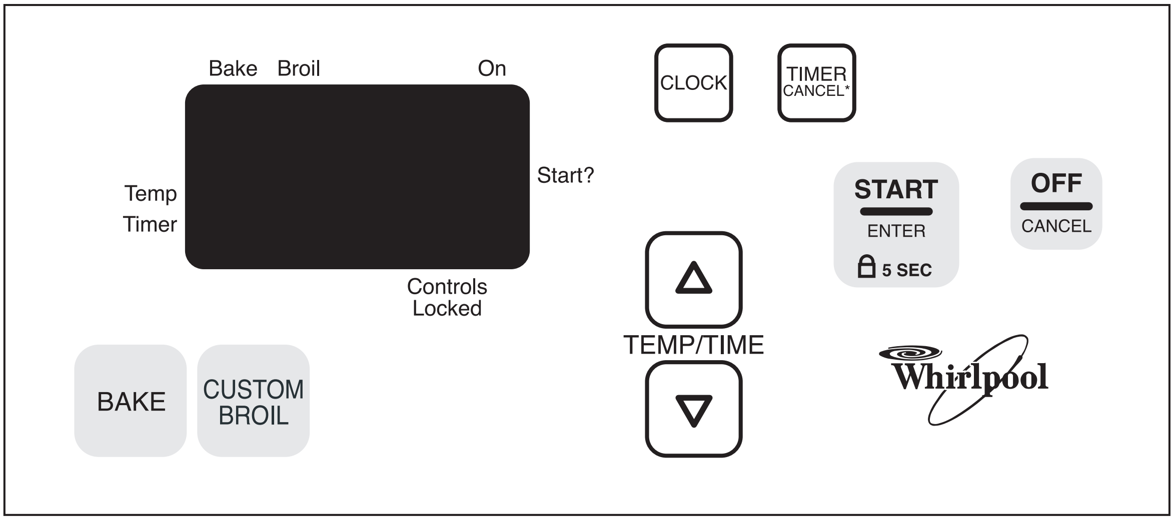
Wiring Diagram
Models SF196LEP, SF368LEP, SF369LEP, SF378LEP & SF380LEP

NOTE: Schematic shows door latch switch in the COOK position with oven door open, oven off and light on.



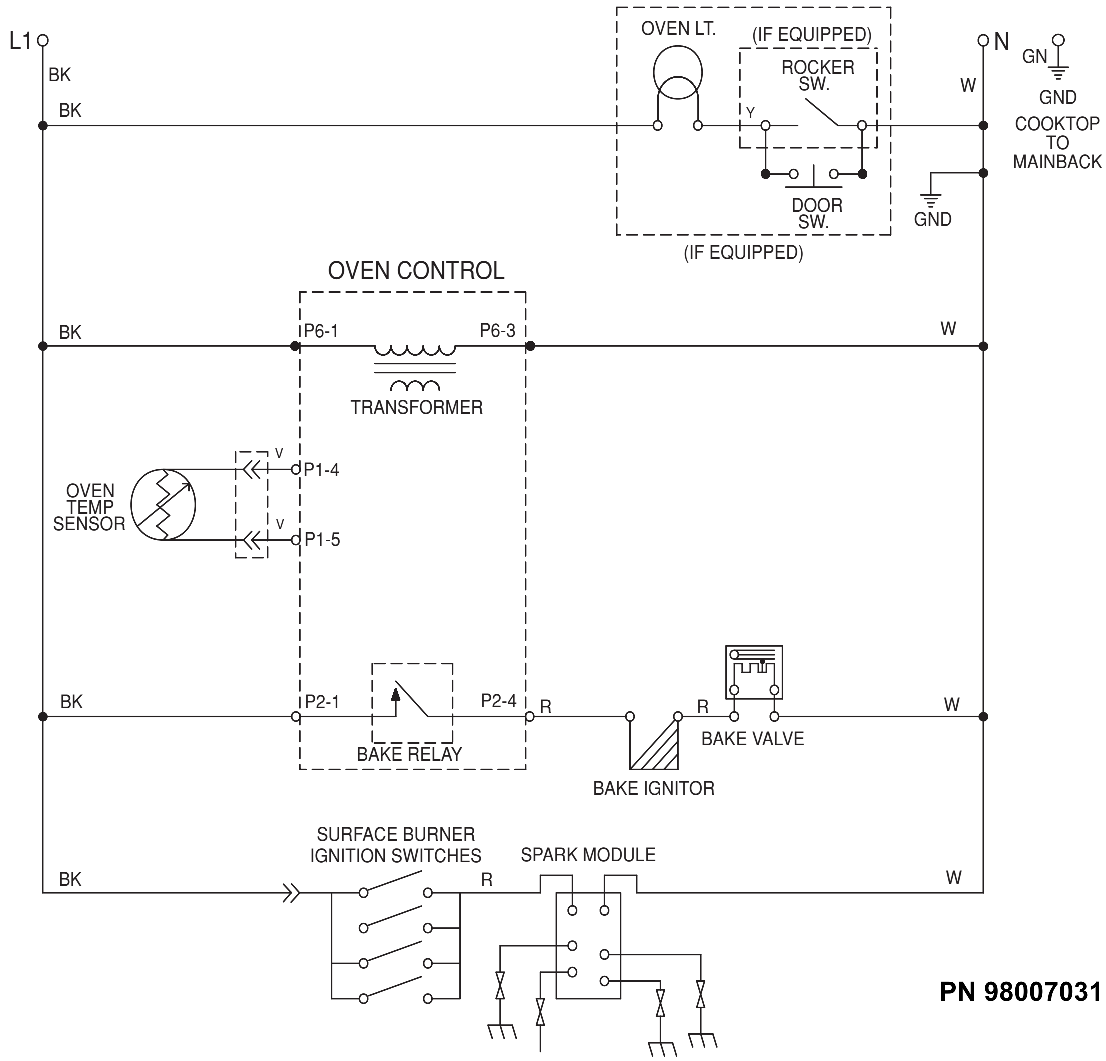
PN 9755996

WHIRLPOOL (CELAYA-BUILT) FREESTANDING MODEL SF315PEP



MODEL: SF315PEP

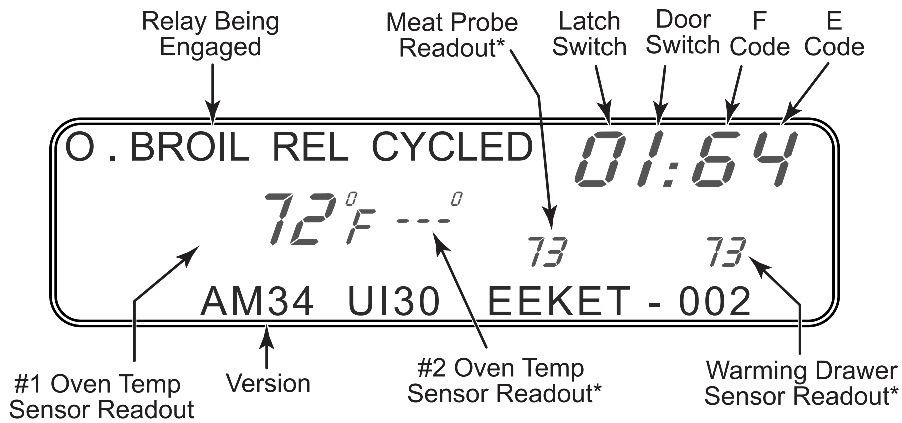
Wiring Diagram



PN 98007031

KITCHENAID GOC CLOCK MANUAL DIAGNOSTICS

KITCHENAID DIAGNOSTICS DISPLAY



* If available (3 dashes will be shown if not available)

ENTERING MANUAL DIAGNOSTICS

Within 120 seconds of power up, press the following keys to enable the relay capabilities listed below, and enter the manual diagnostics mode:

a) ***Cancel*** key.
b) ***Cancel*** key.
c) ***Start*** key.

ENGAGING THE RELAYS

Pressing the following keys will toggle the state of the associated relays. **NOTE:** For the latch relay, the self-clean button will turn on the latch relay, and changing the state of the latch switch will turn off the relay.

Key Press	***Relay***	***Text Line Display***
Bake Key	Bake Relay	BAKE RELAY CYCLED
Maxi Broil Key	Outer Broil Relay	O.BROIL REL CYCLED
Econo Broil Key	Inner Broil Relay	I.BROIL REL CYCLED
Convect Bake	Conv Relay and Fan	CONV REL CYCLED
Warm Drawer On	Warm Drawer Relay	WD RELAY CYCLED
Top Light	Oven Light Relay	O LIGHT REL CYCLED
Oven Light	Top Light Relay	T LIGHT REL CYCLED
Clean Key	Cycle Motor	ROTATING MOTOR
	After Latch Sw Toggles	MOTOR ROTATED

DOUBLE LINE BREAK (DLB), FANS, AND OPEN DOOR

During diagnostics, all fans and elements may operate with the door open. **NOTE:** The latch motor will not cycle with the door open.

On electric models, the double line break (DLB) will engage when entering the diagnostics mode, and will disengage when exiting the diagnostics mode.

ERROR CODE

Pressing the ***3*** key once will cycle to the next error code. An error code is displayed in the two right clock digits.

ERROR CODE LIST ORDER		
1	ERROR CODE #1	MOST RECENT CODE
2	ERROR CODE #2	ERROR CODE #2
3	ERROR CODE #3	ERROR CODE #3
4	ERROR CODE #4	ERROR CODE #4
5	ERROR CODE #5	ERROR CODE #5

ERROR CODE DETECTION IN DIAGNOSTICS

If an error code is detected in diagnostics, the code will be placed in the two right clock digits, and the system will remain in the diagnostics mode.

SENSORS

#1 Oven Temp Probe is displayed in the main temperature area.
#2 Oven Temp Probe is displayed in the probe temperature area.
Meat Probe is displayed in the start time area.
Warming Drawer is displayed in the stop time area.
If a sensor is out of range, three dashes (- - -) will be displayed in the appropriate temperature field.

SWITCHES

Door Switch is displayed in the 2nd hrs clock field (0 = Open, 1 = Closed).
Latch Switch is displayed in the left-most clock field (0= Open, 1 = Closed).

VERSIONS

AM ## UI## EE###-### in the lower text line shows the AM (Appliance Manager) micro code revision, next the UI (User Interface) micro revision, and last the EEPROM brand fuel and revision.

TIME OUT

The diagnostics mode will time out after 5 minutes from the last user action.

EXITING DIAGNOSTICS

To exit manual diagnostics press the ***Cancel*** Key, or remove power.

OPTIONS SELECTION PAD

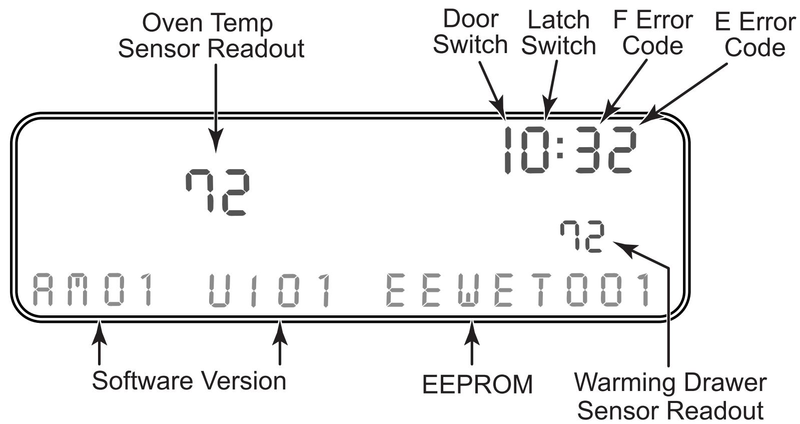
The Options selection pad allows you to access 10 hidden functions within the electronic oven control. The hidden functions let you change the oven temperature between Fahrenheit and Celsius, turn the audible signals and visual prompts on and off, and adjust the oven calibration. The Sabbath mode is also set using the Options selection pad.

To use the Options: Press the OPTIONS pad. The display will scroll through the options from 1 to 0. Press the OPTIONS selection pad and the number pad to easily access the desired hidden function. For example, pressing 1 on the numeric pad will toggle the temperature readings between Fahrenheit and Celsius.

OPTIONS	HIDDEN FUNCTION
1	Fahrenheit or Celsius
2	Sound On/Off
3	Sound High/Low
4	End Beep On/Off
5	Oven Temp Calibration
6	Sabbath Mode

WHIRLPOOL GOC CLOCK MANUAL DIAGNOSTICS

WHIRLPOOL DIAGNOSTICS DISPLAY



ENTERING MANUAL DIAGNOSTICS

Within 120 seconds of power up, press the following keys to enable the relay capabilities listed below, and enter the manual diagnostics mode:

a) ***Cancel*** key.
b) ***Cancel*** key.
c) ***Start*** key.

ENGAGING THE RELAYS

Pressing the following keys will toggle the state of the associated relays. **NOTE:** For the latch relay, the self-clean button will turn on the latch relay, and changing the state of the latch switch will turn off the relay.

Key Press	***Relay***	***Upper Text Line Display***
Bake Key	Bake Relay	BAKE RELAY CYCLED
Broil Key	Broil Relay	BROIL REL CYCLED
Convect Bake	Convect Relay & Fan	CONV REL CYCLED
Warm Drawer On	Warm Drawer Relay	WD RELAY CYCLED
Top Light	Oven Light Relay	O LIGHT REL CYCLED
Oven Light	Top Light Relay	T LIGHT REL CYCLED
Clean Key	Cycle Motor	ROTATING MOTOR
	After Latch Sw Toggles	MOTOR ROTATED

DOUBLE LINE BREAK (DLB), FANS, AND OPEN DOOR

During diagnostics, all fans and elements may operate with the door open. **NOTE:** The latch motor will not cycle with the door open.

On electric models, the double line break (DLB) will engage when entering the diagnostics mode, and will disengage when exiting the diagnostics mode.

ERROR CODE

Pressing the "Up" Hour key once will cycle to the next error code. An error code is displayed in the two right clock digits.

ERROR CODE LIST ORDER		
1	ERROR CODE #1	MOST RECENT CODE
2	ERROR CODE #2	ERROR CODE #2
3	ERROR CODE #3	ERROR CODE #3
4	ERROR CODE #4	ERROR CODE #4
5	ERROR CODE #5	ERROR CODE #5

SENSORS

Oven Temp Probe is displayed in the main temperature area.
Warming Drawer is displayed in the stop time area.
If a sensor is out of range, three dashes (- - -) will be displayed in the appropriate temperature field.

SWITCHES

Door Switch is displayed in the 2nd hrs clock field (0 = Open, 1 = Closed).
Latch Switch is displayed in the left-most clock field (0= Open, 1 = Closed).

VERSIONS

AMUIEE in the lower text line shows the AM (Appliance Manager) micro code revision, next the UI (User Interface) micro revision, and last the EEPROM brand fuel and revision.

TIME OUT

The diagnostics mode will time out after 5 minutes from the last user action.

EXITING DIAGNOSTICS

To exit manual diagnostics press the ***Cancel*** Key, remove power, or wait for a 5 minute timeout.

DIAGNOSTIC TEST PROCEDURES

WHIRLPOOL EZ625

To enter the test:

Disconnect power to the unit for at least 15 seconds, and then reconnect it.

Press the following control keypads within one minute after power up:

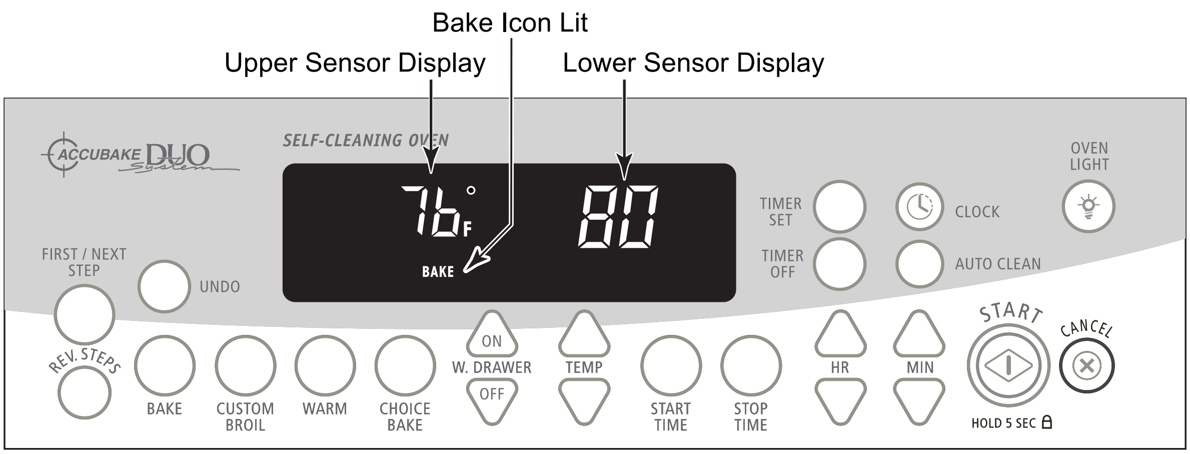
CANCEL
CANCEL
START

The clock will run through a series of numbers. When it stops, you will be able to progress through the test process by pressing the START keypad.

Test 1: Bake Relay Output

The Bake relay is enabled (ignitor sparking will start in the oven—a 40 second delay after power up).

- The upper sensor temperature is displayed on the left (orange display)
- The lower sensor temperature is displayed on the right (blue display)
- The BAKE icon is lit

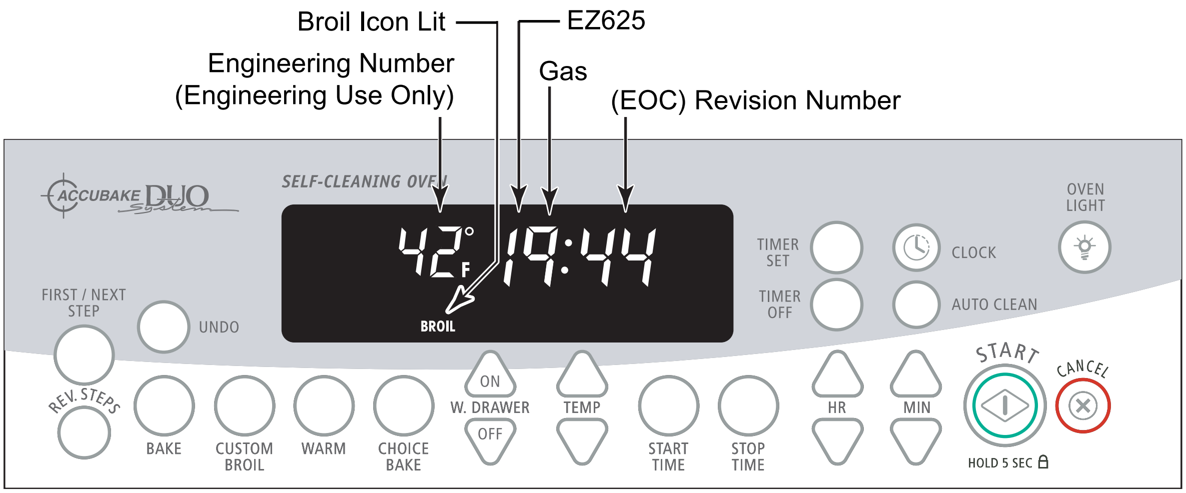


Press the START keypad to progress through the test.

Test 2: Broil Relay Output

The Broil relay is enabled (ignitor sparking will start in the oven—a 40 second delay after power up).

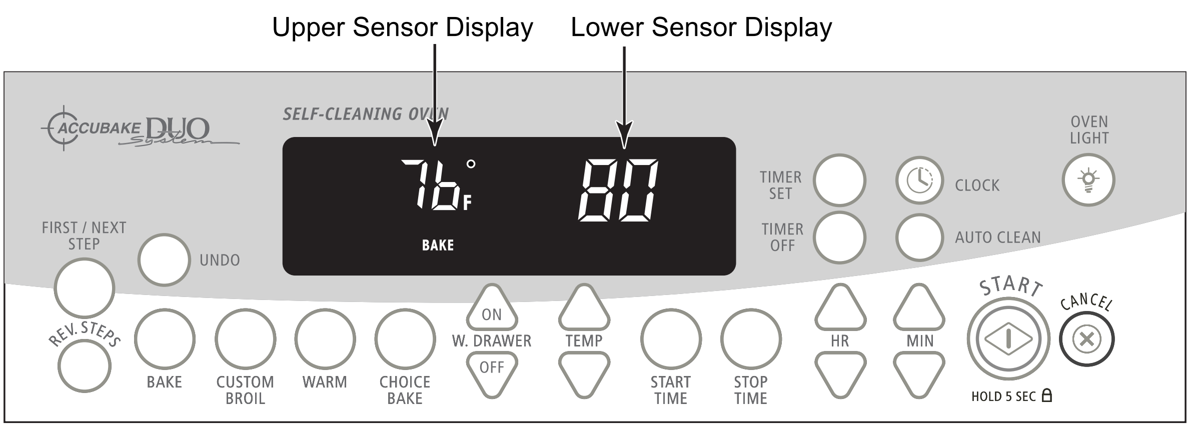
- The BROIL icon is lit
- 2 digit number (for Engineering use) is displayed on the left
- Model and fuel configuration codes displayed in first 2 digits of 4 digit display
  - 1 = EZ625 models
  - 9 (or g) = Gas
  - E = Electric
- Electronic Oven Control (EOC) revision number displayed in last 2 digits of 4 digit display



Press the START keypad to progress through the test.

Test 3: Sensor Display

- The upper sensor temperature is displayed on the left (orange display)
- The lower sensor temperature is displayed on the right (blue display)



Pressing the START keypad will return to Test 1.

To exit the test, press the CANCEL keypad. The test will remain active for 20 minutes before automatic timeout.

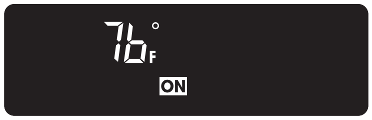
KITCHENAID EZ373 & 520

Test Mode: Available for the first 60 seconds after power up.

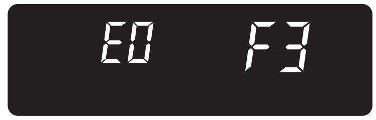
Enter the Test Mode by pressing:

CANCEL
CANCEL
START

Any system or control failures will be displayed within 2 seconds.



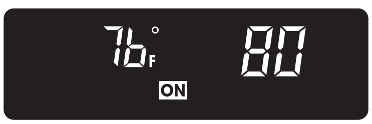
NORMAL DISPLAY



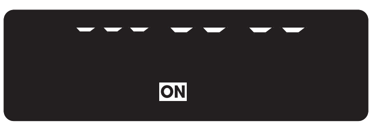
ERROR DISPLAY

Exit the Test Mode by pressing the OFF/CANCEL key.
To recall the last error code, press the OFF/CANCEL key for 5 seconds.
Pressing the numerical keys will show the following displays:

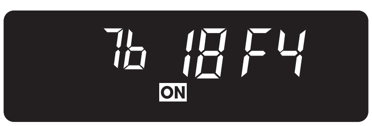
1



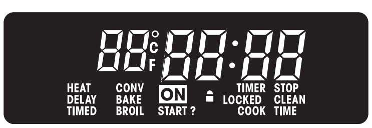
2



3



4



5



6



7



8



9



0



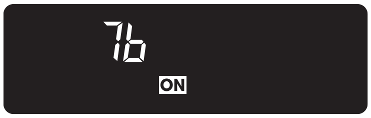
WHIRLPOOL EZ354, 357, 358, & 410

Test Mode: Available for the first 60 seconds after power up.

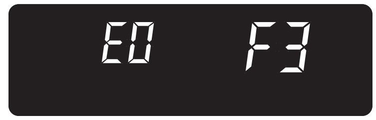
Enter the Test Mode by pressing:

CANCEL
CANCEL
START

Any system or control failures will be displayed within 2 seconds.



NORMAL DISPLAY



ERROR DISPLAY

Exit the Test Mode by pressing the OFF/CANCEL key.

To recall the last error code, press the OFF/CANCEL key for 5 seconds.

Pressing the indicated keys will show the following displays:

Convection Bake



Bake



Custom Broil



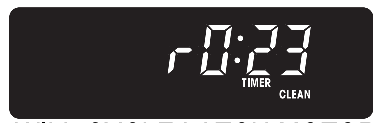
Temp +



Temp –

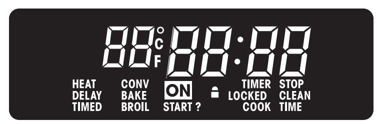


Auto Clean



WILL CYCLE LATCH MOTOR

Min +



Clock



WILL CHECK BUZZER

OFF/CANCEL



EXIT TEST MODE

Hidden Functions

Holding the appropriate key for 5 seconds will activate the hidden function:

BAKE	Temperature Calibration Offset
BROIL	Temperature Scale Selection (°F / °C)
OFF/CANCEL	Recalls The Last Failure Code
START/ENTER	Software Revision Number
TIMER SET	Disables/Enables Timer Reminder Signals
COOK TIME	Disables/Enables Cycle End Signals
STOP TIME	Disables/Enables Valid Date Entry Signals

WHIRLPOOL EZ175 & 176

Self-Diagnostic Test Mode: Available for the first 60 seconds after power up.

1. Enter the Self-Diagnostic Test Mode by simultaneously pressing:

   BAKE and CLOCK

2. The display will show "*tESt*".
3. Pressing the DOWN (▼) arrow will display the following information in order shown. Pressing the UP (▲) arrow will display this information in reverse order.

Temperature Resistance of the Sensor	(i.e. 77°)
Current User Offset Value (in EPROM)	(i.e. +20)
Software Revision	(S###)
Checksum	(####)
Last Failure Code	(F#/E#)

4. Pressing the Power keys BAKE, BROIL, & AUTOCLEAN will toggle their respective outputs and indicators.
5. The Door Latch Relay is toggled by pressing the AUTOCLEAN key. The door latch motor will complete one revolution.
6. Pressing the CLOCK key will perform an "all segment / indicators on" function to verify that all segments on the display, and the LED indicators, are working properly.
7. Pressing the START key checks the BEEPER, giving a constant "beep" tone when depressed.
8. Pressing the CANCEL key will take the control out of the "test" mode, and into an "idle" state.

NOTE: The Self-Diagnostic Mode will only allow access for 10 minutes before it times out and returns to an idle state.

Hidden Functions

Pressing and holding the BROIL key for 5 seconds will toggle the display from Fahrenheit (°F) to Celsius (°C).

WHIRLPOOL EZ300

Self-Diagnostic Test Mode: Available for the first 60 seconds after power up.

1. Enter the Self-Diagnostic Test Mode by sequentially pressing:

   TEMP DOWN
   TIMER OFF

   This test will produce a blank display, then any system or control failures will be detected within 2 seconds.

2. Pressing the CANCEL key will take the control out of the “test” mode, and into an “idle” state.

NOTE: The Self-Diagnostic Mode will only allow access for 10 minutes before it times out and returns to an idle state.

Hidden Functions

Holding the appropriate key for 5 seconds will activate the hidden function:

BAKE	Temperature Calibration Offset
BROIL	Temperature Scale Selection (°F / °C)
OFF/CANCEL	Recalls The Last Failure Code
START/ENTER	Software Revision Number
TIMER SET	Disables/Enables Timer Reminder Signals
COOK TIME	Disables/Enables Cycle End Signals
STOP TIME	Disables/Enables Valid Date Entry Signals

— NOTES —

— NOTES —

— NOTES —

PRODUCT SPECIFICATIONS
AND
WARRANTY INFORMATION SOURCES

IN THE UNITED STATES:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:

FOR WHIRLPOOL PRODUCTS: 1-800-253-1301
FOR KITCHENAID PRODUCTS: 1-800-422-1230
FOR ROPER PRODUCTS: 1-800-447-6737

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-253-2870

HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN AUTHORIZED SERVICER

FOR LITERATURE ORDERS:

PHONE: 1-800-851-4605

FOR TECHNICAL INFORMATION AND SERVICE POINTERS:

www.servicematters.com

IN CANADA:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:

1-800-461-5681

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-488-4791

HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN AUTHORIZED SERVICER

KitchenAid®

FOR THE WAY IT'S MADE.®